

FURTHER NOTES ON AUSTRALIAN COLEOPTERA,
WITH DESCRIPTIONS OF NEW SPECIES.

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The following paper is partly supplementary to the series of papers that I have read before the Royal Society during the year, but I take the opportunity its publication affords to furnish descriptions of new species that have recently come under my notice.

I have lately had the advantage of receiving a communication from my friend, D. Sharp, Esq., M.D., of Shirley Warren, near Southampton, England, President of the Ent. Society of London, relative to a number of types that I forwarded to him some time ago, and also to some of the series of memoirs that I have read before the Royal Society. As Dr. Sharp's standing among students of entomology is so high that he is probably generally regarded as "*facile princeps*" of living coleopterists, I have received his notes and determinations with extreme interest, and am glad to have received them in time to correct in this present volume of our transactions two errors that they have brought to my notice in my previous papers—one the application to a new genus of a name that was already in use, the other the description by me as new of a species that M. Fauvel had already described in the *Ann. Mus. Civ. Gen.*, 1877. In correcting the latter (see below) I have explained why I failed to identify my insect with M. Fauvel's.

CARABIDÆ.

(SUB-FAM. SCARITIDÆ.)

EPILECTUS *gen. nov.*

I offer this name as a substitute for *Eurygnathus* (vid. ant. p. 12) which, Dr. Sharp points out, is already in use for a genus of *Carabidæ*.

(SUB-FAM. CRATOCERIDÆ.)

PHORTICOSOMUS.

In characterising this genus, Dr. Schaum states that the abbreviated scutellar elytral stria is absent. This, however, does not appear to be strictly correct. In most examples of *P. felix*, Sch. (the type of the genus), I find traces of it, generally amounting to no more than an impression at the extreme base, but sometimes being more prolonged, and in several other

species of the genus it is almost well-defined in some specimens. In all the species of the genus known to me there is a distinct elytral impression on the third interstice, behind the middle, but I have seen occasionally examples in which it is hardly to be discerned; also, I find that under a strong lens the anterior tibiæ are crenulate on the lower part of their exterior margin. The under surface and femora are dotted very thinly with extremely long hairs.

P. mucronatus, sp. nov. Rufo-piceus, prothorace (marginibus lateralibus exceptis) et capite obscurioribus; illi angulis posticis acutis subdentiformibus; elytris apice submucronatis, minus fortiter striatis, interstitiis planis antice, postice subconvexis. Long., 6 l.

The thorax is widest a little in front of the middle, with its lateral margins rather strongly rounded and quite widely reflexed (considerably more so than in *P. felix*, Schaum), and has a feeble impression on either side at the base, with scarcely any puncturation; the anterior angles are strongly produced. The apex of the elytra is produced in a conspicuous manner.

A specimen has been sent to me by Mr. Rothe, of Sedan, and there is another (badly crushed and useless as a type) in the South Australian Museum, taken at Parallana by Mr. C. M. Bagot, from which, however, I have described the colours, as the specimen from Mr. Rothe appears to be immature, and is much paler.

P. brunneus, sp. nov. Rufo-brunneus vel piceus, antennis palpis pedibusque dilutioribus; prothorace canaliculato, antice bisinuato, postice angustato, angulis posticis obtusis; elytris fortiter striatis. Long. $4\frac{3}{4}$ —5 l.

Brown, inclining to reddish, or to pitchy; legs palpi and antennæ uniformly paler. Head, across the eyes, a little wider than the base of the thorax. Thorax transverse, widest in front of the middle, scarcely half again as wide as long, faintly channelled (the channel reaching neither the base nor apex); the anterior margin bisinuate, considerably wider (*i.e.*, as 4 to $3\frac{1}{4}$) than the base; sides rather strongly rounded, scarcely sinuate just before the base, with a narrow reflexed margin; base very gently emarginate; anterior angles not prominent; posterior angles very obtuse, but not quite rounded off; the region of the posterior angles explanate, with the margin considerably turned up; across the thorax, just in front of the base, is a transverse depression, which is separated from the extreme base (except close to the posterior angles) by a narrow portion which is not depressed and into which the central longitudinal channel does not penetrate; in the transverse depression there are some obscure wrinkles, and the explanate

region of the posterior angles is occupied by some rather close ill-defined puncturation; there is an obscure curved impression across the middle of the front part of the thorax which forms the anterior limit of the longitudinal channel. The elytra are regularly and rather strongly striated, with the abbreviated stria represented (in the specimens before me) only by a fovea at the extreme base; the interstices are wide, almost quite flat near the front, but become narrower, and convex, behind, the third interstice bearing a well marked puncture behind the middle.

This insect is extremely close to *P. felix*, Schaum, which is described very briefly and unsatisfactorily by its author. The figure supplementing the description, however, has enabled me to identify as that species an example sent to me from Melbourne, and there is another much damaged specimen in the South Australian Museum. *P. brunneus* differs from *felix* in being a little narrower, with the antennæ uniformly testaceous red, instead of pitchy with the base paler; its thorax is not quite so strongly transverse, and is much more narrowed behind, with the edges of the explanate part near the posterior angles more turned up. In *felix*, moreover, the declivous hind portion of the thorax continues evenly to the extreme base and is much more strongly and closely wrinkled.

Lyndoch Valley. Taken by Mr. Tepper.

P. similis, sp. nov. Brunneus, antennis palpis pedibusque pallidioribus; prothorace vix canaliculato, antice vix bisinuato, cordato, angulis anticis haud productis, posticis acute rectis; elytris minus fortiter striatis, interstitiis planis. Long. 5 l.

Head, across the eyes, slightly narrower than the base of the thorax. Thorax transverse, widest in front of the middle, about half again as wide as long, very feebly channelled; anterior margin scarcely wider than base; a transverse curved depression well marked in the front; sides strongly rounded in front, becoming straight just before the base; margins narrow and but little explanate behind; surface almost absolutely devoid of puncturation. Elytra rather feebly striated, the interstices almost perfectly flat even to the apex.

This insect resembles *P. mucronatus*, but besides the elytra being normal at the apex, the thorax is a little narrower behind, with the anterior angles not prominent, the sides much more narrowly margined and the posterior angles slightly less sharp.

There is a single specimen in the South Australian Museum. It was taken, almost certainly, in South Australia, but I cannot ascertain exactly in what locality.

(SUB-FAMS. ANISODACTYLIDÆ AND HARPALIDÆ.)

The classification of the Australian insects of these groups is in a state of great confusion; nor am I able to do very much towards clearing up the difficulty. The great obstacle consists in the unsatisfactory nature of most of the descriptions that have been published, which renders the identification of the insects they refer to very doubtful. As I have before me some species of the group that are certainly as yet undescribed, and which I now purpose describing, it will not be out of place to preface my descriptions with a few notes on the genera of these sub-families. Taking Mr. Masters' recent catalogue of Australian *Coleoptera* in hand, we find the general confusion very clearly reflected there. Under the heading "*Harpalides*" that catalogue includes all the genera mentioned in it which belong to M. Lacordaire's two tribes *Anisodactylides* and *Harpalides*. But it is headed by the genus *Phorticosomus* which Dr. Schaum (its author) states (evidently correctly) to belong to the *Cratocerides*—a sub-family that finds a place elsewhere in Mr. Masters' catalogue. The next genus *Geobænus* is represented by a single species described in the "*Voyage de la Coquille*," the identification of which is probably hopeless, and which is not at all likely to be a real *Geobænus*. Then follows *Gnathaphanus*, to which eleven species are attributed. *Gnathaphanus* was founded by Mr. W. S. Macleay on the female of a species from Java, and Lacordaire and Erichson have both regarded it as probably a mere synonym of *Harpalus*. However this may be, unless there is evidence in the matter unknown to me, I should think it very improbable that the Australian species are entitled to bear the name. The first species in the genus (*Adelaidæ*, Cast.), and several others at least, are moreover evidently congeneric with the species that appears some pages further on under the name of *Microsaurus* (a name that has fared badly, for its author, Mr. Bates, in the *Journal of Entomology*, gives it as *Mirosarus*, and in the same volume it is indexed as *Microsarus*). *Anisodactylus* follows *Gnathaphanus* with three species, one of which was attributed to the genus by the Baron de Chaudoir. This is no doubt very high authority so far as concerns the species described by the Baron*; as regards the other two (*Harpalus rotundicollis* and *Waterhousei*, Cast.), although the tarsal structure and some other characters are extremely suggestive of *Anisodactylus*, the shape of the thorax, the great slenderness of the antennæ and palpi, and other features produce a facies utterly unlike that of the European *Anisodactyli*, and suggest the need of a new generic name. Without having seen the Baron de Chaudoir's

* I have not seen the description.

remarks on the subject, however, I should not do wisely to take action in the matter. Then follows *Haplaner*, founded by the Baron de Chaudoir for a single species (described by the Count de Castelnau as a *Harpalus*), and this is no doubt a good genus. Then comes *Diaphoromerus*, formed by the Baron de Chaudoir for an Australian insect—no doubt a perfectly satisfactory genus, but no representative of it has come under my notice, and (as I have examined a large number of *Anisodactylides* from various parts of the colony) I cannot but conclude from this that some, if not many, of the crowd of species Mr. Masters attributes to it are not really at home there. The five genera that follow are doubtless quite satisfactory, but they do not average three species apiece. Of the remaining four genera (1) I should say that some at least of those called *Harpalus* are very questionable; (2) *Cyclothorax* belongs to the *Anchomenidæ*; (3) concerning *Stenolophus* and *Acupalpus*, as I have not seen any of the few species so named, nor do the authors of those species attribute to them any of the essential characters of those genera, I will only say that if the insects are correctly placed, it is very interesting on account of the general divergence of the Australian *Harpaloid* series from the types that prevail in the Northern Hemisphere. I will just guard myself, in conclusion, from being understood to depreciate Mr. Masters' work by saying that he has no doubt followed the only course open to him in distributing the species he enumerates among known genera rather than going beyond the province of a catalogue by forming new genera. His catalogue will doubtless long remain the standard one on which students will work, and is very valuable. So many of the types on which the Australian species were founded are in Europe (if existent at all), that no small boon would be conferred on Australian workers if some European specialist would make a careful examination of such as are available, and report the result to one of our scientific Societies for publication.

NOTE TO MY REMARKS ON ANISODACTYLIDÆ AND HARPALIDÆ.

While these notes were in the press, and too late for me to alter them, I received through the kindness of Dr. Gestro, of Genoa, a copy of the Baron de Chaudoir's memoir alluded to above as not having been seen by me. I find that in the main, though not strictly, Mr. Masters has followed the Baron in his arrangement of the families in question. On the whole the perusal of the memoir has not led me to modify to any considerable extent the remarks that I have made. I cannot but consider still that *Diaphoromerus* as the Baron has arranged it is an assemblage of forms that ought not to be united in a single

genus. The Baron regards as mere sections groups of species which have the male anterior and intermediate tarsi widely dilated (the basal four joints being similarly clothed beneath), and groups in which the same are very slightly dilated (with the first joint clothed differently from the rest). The memoir has enabled me to identify with certainty some of the species in the former section concerning which I was not previously sufficiently assured to found any conclusion on their characters, and when I place side by side *Harpalus Germari*, Cast., and *Harpalus Deyrollei*, Cast., their differences appear far too great to allow of their bearing a common generic name, while the close affinity between the latter and *Hypharpax* is beyond doubt. The Baron does not appear to have noticed the striking difference between the hind tarsi of *Diaphoromerus* (first group) and those of *Hypharpax*, and seems to have regarded the tooth on the hind femora of the latter as a constant character, the absence of which should *ipso facto* exclude from the genus. I am quite convinced that *Harpalus inornatus*, Germ., is a typical *Hypharpax*, although the Baron places it as a synonym of *Harpalus australis*, Dej. (without giving any reason), under the generic name *Diaphoromerus*. As I have said above, I think it possible that the two may be identical, but in that case *H. australis* is a *Hypharpax*. My remarks on *Anisodactylus* are quite in agreement with those of the Baron. Touching *Gnathaphanus*, he appears to have deliberately considered the Australian species called by that name generically inseparable from the Javanese individual for which the name was provided, so that the doubt I have expressed above on the point is probably unfounded. In that case Mr. Bates' genus *Mirosarus* will not stand, I think, as it appears to have been founded for a species that de Chaudoir would have considered to be a *Gnathaphanus*.

HYPHARPAX.

This genus is, I think (among the *Anisodactylides*, having the anterior and intermediate tarsi in the male strongly dilated with the basal joint not very much smaller than the second) best distinguished by the shortness of the tarsi, especially the hindmost. These—*i.e.*, the hind tarsi—are very decidedly shorter than their tibiæ, and have their basal joint in some species scarcely, in others not at all, longer than the second. The characters in the hind femora and tibiæ of the males are very variable. In *H. lateralis*, W. S. Macleay (the type of the genus), the femur is said to be unidentate beneath, and the tibia to be arched and crenulate within. In Mr. Bates' *H. puncticauda* the femur is said to be "incrassate but not dentate," and the tibia to be flexuous but not arched. I have before me a number of species (several of which are probably identical with some

already described) in one of which I can discover no difference in structure between the hind legs of the male and female, and in another (certainly *H. inornatus*, Germ., I think) the hind femur is more strongly dentate in some males than in others. All the species of this genus that I have seen are short, broad insects, with the thorax strongly, or very strongly, transverse, and its basal and apical margins not differing much from each other in width. The following species attributed to *Diaphoromerus* in Mr. Masters' catalogue belong, I think to *Hypharpax*, viz., *æreus*, Dej., **australis*, Dej.,* *inornatus*, Germ., **Covi*, Cast, *Bostocki*, Cast, *femoralis*, Cast, *mandibularis*, Cast, and perhaps *mæstus*, Dej., and *ranula*, Cast. The following, which Mr. Masters places in *Harpalus*, also seem from the descriptions to belong to *Hypharpax*, viz., *atroviridis*, Macleay, and *convexiusculus*, Macl.

H. inornatus, Germ. A species occurring commonly at Port Lincoln and also around Adelaide, agrees so well with Germar's description that I have no hesitation in considering it identified. The following particulars are omitted by Germar, and should be placed on record, viz., the male characters are exactly as in typical *Hypharpax* (the tooth on the posterior femora, however, being more strongly developed in some specimens than in others) the width of the thorax is nearly half again the length of the same, and its hind angles are slightly obtuse, but rounded off, the hinder part of the lateral margin forming a slightly obtuse angle with the base, but the angle itself being rounded; the puncture on the third interstice of the elytra is nearer to the apex than in some other species of the genus. The description of *Harpalus australis*, Dej., does not altogether agree with that of *H. inornatus* (e.g., the thorax being called "subtransversus"), but, nevertheless, it is quite possible they may refer to the same species, in which case Dejean's name must have the preference, as in Mr. Masters' catalogue. I should think it also open to much doubt whether *Harpalus Peroni*, Cast, is not really identical with *inornatus*. I do not, however, see sufficient reason for Mr. Masters' identification of *H. Peroni* with *H. novæ-Hollandiæ*, Cast, as their author gives a perfectly satisfactory differential character between them in the shape of the thorax. I possess a *Hypharpax* from Melbourne which I have little doubt is the latter species. It is extremely close to *inornatus*, Germ., but has the thorax much narrower in front, and is a little smaller.

* Mr. Masters treats these three as identical, but I am not clear on the point. Germar's insect may be identical with Dejean's, but Count de Castelnau's description is too vague for identification, and it is very unlikely to be founded on the same insect as Germar's, and if so the description of the colour of the legs must have been founded on a very unusual variety.

H. Boisduvali, Cast. I possess a female specimen from Swan River, evidently a *Hypharpax*, which is probably this insect. It differs from the preceding exactly, as *H. Boisduvali* is said to differ from *australis*, Dej., its thorax being nearly twice as wide as long, with strongly rounded sides, and the elytra wide, (especially behind), with slightly feebler striation. I cannot understand Mr. Masters' reference of *H. Boisduvali* to *æreus*, Dej., as the thorax of the latter is said to be rectangular behind. I should say that *H. Boisduvali*, Cast, is a good species.

THENAROTES.

T. australis, sp. nov. Piceus; nitidus; palpis, antennarum basi, prothorace, elytrorum marginibus lateralibus apiceque, et pedibus, rufis testaceisve; antennis elongatis (corporis dimidio sublongioribus); prothorace transverso postice angustato; elytris striatis, striis latera versus deficientibus; subtus piceus in medio rufescens. Var., pronoto prosteronque in medio infuscatis. Long. $1\frac{2}{5}$ —2 l.

The whole upper surface is absolutely devoid of puncturation, properly so-called, except a single small puncture on the third interstice of each elytron behind the middle; there are also a few obscure coarse impressions in a very strong furrow which runs a little within the lateral margin of the elytra, commencing about the middle and reaching the apex. The antennæ (by measurement) slightly exceed half the length of the body, but appear even longer to the eye, and are of a fuscous colour (except the basal two joints). The thorax is about one-third wider than long, is widest just behind the front, and thence arcuately narrowed to the base, has basal angles almost rounded off and a fairly strong rounded impression on either side in front of the hind margin, is extremely finely margined at the sides, and pretty distinctly channelled longitudinally. Each elytron bears four well-marked striæ, outside which there is no distinct sculpture, except the lateral furrow mentioned above. The eyes are large and prominent. As the specimens before me all appear to be females, I can give no particulars concerning the tarsi of the male, but as I have Dr. Sharp's authority for attributing the insect to *Thenarotes*, I suppose they are as in *T. tasmanicus*, Bates. The under surface is minutely coriaceous.

I have met with this insect near Port Lincoln and in the Adelaide district, and have seen specimens taken by Mr. Rothe near Sedan.

T. discoidalis, sp. nov. Nitidus; rufus vel piceo-rufus, capite (labro mandibulisque exceptis) et elytrorum disco piceis vel nigris; antennis elongatis (corporis dimidio longitudine æqualibus); prothorace transverso, postice angustato, basi

utrinque foveolato punctulato, elytris striatis. Var.? Minor; elytris totis (sutura margineque laterali postice exceptis) piceis. Long. $1\frac{4}{5}$ —2 l.

This species is rather closely allied to the preceding. The thorax is slightly less transverse (its width being scarcely one-third greater than its length), with some puncturation about the posterior angles which are obtuse, but well defined; the elytra are more strongly striated, and the striæ do not become obsolete laterally; the puncture on the third interstice is wanting; the colour is different also, the dark portion of each elytron being bordered all round (except along a portion of the base in some specimens) with a red colour similar to that of the thorax. In the male the tarsal structure is as Mr. Bates describes it in *Thenarotes*. There is no abbreviated scutellar stria in any of the specimens that have come under my notice, but I do not attach great importance to this character, since I find traces of a stria in some specimens, and not in others, of the preceding species. I also observe that the antennæ are exceptionally short in some specimens both of this and of the preceding; probably it indicates a sexual distinction.

Near Adelaide; also Sedan (Rothe).

T. metallicus, sp. nov. Minus nitidus; æneo-niger, antennis palpis pedibusque pallidis; antennis corporis dimidio longitudine æqualibus; prothorace transverso, postice angustato, angulis posticis obtusis; elytrorum disco obsolete striato. Long. $1\frac{2}{3}$ — $1\frac{3}{5}$ l.

This species does not appear to differ from *Thenarotes* except in the very slight dilatation of the anterior and intermediate tarsi in the male. The thorax is strongly transverse (not much less than twice as wide as long), widest in front of the middle, with the sides rounded, the posterior angles obtuse, and an ill-defined fovea on either side behind. The elytra are elongate and parallel, with about three traceable striæ, outside which there are no distinct striæ, but there is a rather strong furrow representing the apical portion of about the seventh stria. The whole surface of the insect is finely coriaceous. It has much the facies of *Metabletus*.

I have two specimens taken in the Adelaide district.

NOTOPHILUS, gen. nov.

(SUB-FAM. ANISODACTYLINÆ.)

Gen. *Thenaroti* affinis, at tarsorum 4 anteriorum plantis 1-4 squamipilosis; corpus convexius minus elongatum.

The species for which I have founded this genus do not appear to differ from *Thenarotes* structurally otherwise than in

the characters of the dilated tarsi in the male. Their facies is, however, different, owing to their shorter and more convex form.

N. niger, sp. nov. Minus nitidus; niger antennis pedibusque picescentibus; prothorace transverso, margine antico posico latitudine æquali; elytris (striâ suturali exceptâ) haud striatis. Long. $1\frac{1}{2}$ — $1\frac{2}{3}$ l.

The antennæ are slender and reach back considerably beyond the base of the thorax; the frontal impressions of the head are very slight; the thorax is rather more than half again as wide as long, has no dorsal channel and is impunctate and in front nearly truncate. The sides are considerably arched, the reflexed margin very fine and the hind angles rounded off, near which there is a large impression on either side. The scutellum is large but scarcely penetrates between the elytra. These latter are nearly three times as long as the thorax, not very convex, and are arched on the sides; excepting some marginal impressions near the apex, a faint costa just within them, a puncture on either side behind, about where the third interstice would be if it existed, and a sutural stria, there is no trace of punctures or striæ; the surface, however, is not very shining. The anterior and intermediate tarsi in the male are moderately dilated, the basal three joints being about equal in width; the second is distinctly longest and is quite twice the length of the fourth; the first and third are about equal to each other and are not much shorter than the second; none of them is transverse unless the fourth, which is scarcely so. The hind tarsi are not much shorter than their tibiæ; their first joint is a little shorter than the second and third together, the fourth short, the fifth nearly equal to the first. In general appearance this species reminds one of *Blechnus*, though of course the thorax is wider.

Port Lincoln.

N. gracilis, sp. nov. Sat nitidus; niger; antennis pedibusque picescentibus; prothorace transverso, antice quam postice vix latiori; elytris obsolete striatis, striis latera versus deficientibus. Long. $1\frac{1}{5}$ — $1\frac{2}{5}$ l.

Very closely resembles the preceding, but is smaller, a little narrower, and more shining. There is a single well defined puncture on the centre of the surface of the head. The thorax is scarcely so transverse as in *N. niger*, is slightly more narrowed behind, and has a depression all across the base, in which the posterior impressions are included. The elytra are striated, the sutural stria being well defined and two or three striæ besides being traceable which, however, become gradually feebler as they recede from the suture and then cease alto-

gether. In other respects there is little distinction to be noted between the two insects.

Port Lincoln; also the Adelaide district.

N. parvus, sp. nov. Sat nitidus; niger; antennis pedibusque picescentibus vel rufescentibus; prothorace transverso postice angustato; elytris (striâ suturali exceptâ) vix evidenter striatis. Long. 1—1 $\frac{1}{2}$ l.

This very small species is closely allied to both of the preceding two. In shape it resembles *gracilis*. There are several isolated punctures in front of the centre of the surface of the head. The thorax is still less transverse than that of *gracilis*, and is more narrowed backwards; it is depressed all across the base, and is very little wider than the head. The striation of the elytra is scarcely visible outside the sutural stria. In other respects there is little difference from *N. gracilis*.

Widely distributed in South Australia.

N. latus, sp. nov. Nitidus; supra rufus vel testaceus, capite piceo, elytris plus minus venigronotatis; subtus piceus, sternis rufescentibus, antennis palpis pedibusque testaceis, antennis corporis dimidio longitudine vix æqualibus, prothorace transverso, postice angustato utrinque foveolato; elytrorum disco obsolete striato. Long. 1 $\frac{2}{3}$ —1 $\frac{3}{4}$ l.

This diminutive species differs from *Thenarotes* in having the basal joint, as well as the second, third, and fourth, of the anterior tarsi in the male clothed with squamose pilosity, and narrowed at the base. I cannot discover any other structural peculiarity, unless it be that the same joint is not quite so much narrower than the second, as in *Thenarotes*. The thorax is rather strongly transverse (quite half again as wide as long), and is nearly truncate both in front and behind, with a faintly marked dorsal channel; the sides are rather strongly rounded in front (the greatest width being before the middle), and then converge to the base, which is a little narrower than the front margin; the hind angles are well marked and obtuse; strictly speaking the basal region is hardly foveolate, but the hind corners of the thorax are explanate; its surface is quite free from puncturation. The elytra have no sculpture on the disc except a well-marked sutural stria and faint traces of one, two, or three striæ beyond it. The blackish markings of the elytra in a brightly coloured specimen consist of a basal triangle with its apex directed backwards on the suture, and a large patch covering the whole of the apical two-thirds of the elytra except a spot on the suture behind the middle. In a pale specimen the basal triangle is reduced in size, and there is a transverse fascia just behind the middle, these markings being fuscous

rather than black, and shading off into the surface colour. The general appearance is very suggestive of *Sarothrocrepis*.

Near Adelaide, also Sedan (Rothe).

- N. palustris*, sp. nov. Nitidus; brunneo-ferrugineus, elytris abdomineque obscure infuscatis; antennis corporis dimidio brevioribus; prothorace transverso, trans basin depresso, postice vix angustato, utrinque foveolato; elytrorum disco vix striato. Long. $1\frac{1}{2}$ l.

This little insect does not seem to differ structurally from the preceding except in having the basal joint of the male front tarsi as wide as the second. The thorax is widest about the middle, and regularly rounded on the sides, with the basal angles rounded off. There is a depression all across the base, in which is a deep fovea on either side, and there is scarcely any trace of a longitudinal channel, and none at all of any puncturation. The elytra have a fine sutural stria, and scarcely any indication of striæ outside it, but there is a deep furrow near the apex of the external margin, as though the sutural stria was strongly recurved. The colour is a somewhat livid brown, with the legs paler, and there is some very obscure infuscation (which is probably variable) about the basal and apical regions of the elytra.

A single specimen occurred to me on the banks of the Murray, at Murray Bridge.

LECANOMERUS.

- L. flavocinctus*, sp. nov. Nitidus; piceo-niger (nonnullis exemplis capite prothoraceque rufescentibus), mandibulis palpis antennis pedibusque flavis, prothoracis elytrorumque margine summo flavo; prothorace leviter transverso; elytris striatis interstitiis planis. Long. 3 l.

This neat little insect seems to be quite distinct from anything previously described. The anterior margin of the thorax is slightly narrower than the base, the sides are pretty strongly rounded, the greatest width being considerably in front of the middle where it is about one-fourth part greater than the length; the anterior margin is scarcely concave, the hinder angles are roundly obtuse; there is a well defined central channel, and a large shallow impression on either side behind; the thorax has no distinct puncturation. The elytra are rather finely striated, the interstices quite flat except close to the apex where they become convex, the third interstice having no systematic puncturation; the abbreviated scutellar stria is wanting or indicated only by a basal dilatation of the second stria. The anterior and intermediate tarsi are very strongly dilated in the male, the basal joint being quite small

and the second scarcely smaller than the following two together, the fourth strongly emarginate and about the same size as the first. The hind tarsi are slender and not much shorter than their tibiæ, the first joint not much longer than the second, the third and fourth together equal to the first, the fifth quite equal to the first. The claws are very long and slender.

The facies is that of *Calathus*. Is it possible that *Geobænus Australasiæ*, Guer., is really a member of this genus? This question seems to be suggested by M. Lacordaire's remark (Gen. Col. I., p. 273) on the *Calathus*-like appearance of the African genus *Geobænus*.

Port Lincoln; not rare.

L. obscurus, Nitidus; niger; mandibulis, palporum apice, antennisque (basi testaceâ exceptâ) fuscis; pedibus (tibiis apice, tarsisque plus minusve infuscatis exceptis) sordide testaceis; prothoracis lateribus flavis; hoc fortius transverso; elytris subtiliter striatis, interstitiis planis. Long. $2\frac{2}{3}$ l.

The thorax resembles that of the preceding, except that it is more than a third wider than long, with its anterior margin scarcely narrower than its base, and has some confused puncturation about the basal impressions. The sides of the elytra are more parallel, the striæ fainter, the interstices, if possible, flatter in front, and certainly more convex behind; there is a distinct abbreviated scutellar stria and a well-defined puncture on the inner edge of the third interstice. The anterior four tarsi are not so strongly dilated in the male as they are in the preceding species, though their proportions are similar, except that the second joint is not quite so much larger than the rest. The hind tarsi resemble those of the preceding.

Near Adelaide.

L. Lindi, sp. nov. Nitidus; niger; antennis palpis pedibusque sordide testaceis; prothorace vix transverso; elytris striatis, interstitiis vix planis. Long. $2\frac{1}{3}$ l.

Very closely allied to *L. flavocinctus*, but differing in the following respects:—The legs, palpi, and antennæ are of a very dull testaceous color, and the extreme margin of the thorax and elytra is not paler than the rest of their surface; the thorax is evidently narrower, is scarcely a sixth part wider than long, and is widest scarcely in front of the middle; the interstices of the stria on the elytra are not quite so flat. In other respects the description of *L. flavocinctus* would apply to this insect.

P. Lincoln.

Harpalus Deyrollei, Cast. I have identified this species with some certainty, having taken it at Port Lincoln and on Yorke's Peninsula. I am, however, much puzzled as to its affinities. Five specimens are before me regarding the sex of which I am uncertain. In two of them there seems to be a slight dilation of the four basal joints on the anterior and intermediate tarsi, but it is very slight. If I am right in regarding these specimens as males the insect probably belongs to the true *Harpalides*. If, however, they are females the species may be a *Hypharpax*, although it is narrower and more elongate than any other of that genus that has come under my notice. I should be very glad of any precise information regarding the sexes of this insect. It appears to me not unlikely that *H. Fortnumi*, Cast., is founded on this same species, in spite of the Count calling it "rather short and broad," for the expression would not be inapplicable if it be compared with true *Harpali*. The descriptions of *Fortnumi* and *Deyrollei* are vague in the last degree, not even placing their sub-family beyond doubt, but they do not mention any satisfactory distinction of one from the other except the presence of some sculpture on the surface of the thorax in *Fortnumi* which is not attributed to *Deyrollei*. The specimens before me, however, vary in this respect, some having a few *striolæ*, others none.

STAPHYLINIDÆ.

LEPTACINUS.

L. picticornis, mihi (vide ant. p. 7). Dr. Sharp, of Southampton, tells me that specimens of this insect which I forwarded to him are identical with *Xantholinus socius*, Fauv. I have no doubt as to the correctness of this identification on Dr. Sharp's authority, and will ask all correspondents to whom I have supplied the name to substitute *socius*, Fauv., for *picticornis*, Blackb. But I do not think that the species can be regarded as rightly placed in *Xantholinus*. Its dilated anterior tarsi alone prevented my looking for it among species attributed to that genus. Its intermediate coxæ, too, are scarcely more widely separated than those parts are in many species of *Leptacinus*, and the apical joint of the maxillary palpi agrees much better with *Leptacinus* than with *Xantholinus*. I think the insect should be called *Leptacinus socius*, Fauv. It should be noted also that M. Fauvel in his description makes no reference to the peculiar colouring of the antennæ (which suggested my name), and which is strongly marked in almost every one of the multitude of examples that I have examined—the first and third joints being black or pitchy, while all the rest are ferruginous.

PHLÆOCHARIS.

P. antipodum, Fauv. I have met with this species, I think, several times in the Port Lincoln district. If I am right in my identification of it, however, M. Fauvel has founded his description on immature or very pale specimens. I have now before me two examples from Port Lincoln that I cannot consider specifically distinct, one of which is coloured as *P. antipodum* is described, while the other is very much darker, being of a pitchy colour, with the front of the head, the thorax, the apex of the elytra and of the hind body, and the base of the antennæ reddish. It is just possible that if my specimens were placed side by side with M. Fauvel's types they might prove to be a distinct species, but, judging by the description, I think they are identical.

HOMALIUM.

H. Adelaidæ, sp. nov. Piceus; mandibulis, labro, palpis, antennis, pedibusque rufescentibus; antennis brevibus, crassiusculis; capite medio sparsim, ad latera crebrius, subtilius punctulato; prothorace postice leviter angustato, sparsius subtiliter punctulato; elytris prothorace duplo longioribus, crebrius subtiliter sublineatim punctulatis; abdomine obscure subtiliter punctulato. Long. $1\frac{1}{2}$ l.

There is a slightly reddish tone about the thorax, shoulders, and sides of the hind-body in this insect. The antennæ are very little longer than the head; their joints 3-10 all transverse (4-10 strongly so), the apical joint very little longer than wide. The thorax has strongly rounded sides, and is widest just behind the front, thence slightly contracted to the base, in front of which the sides are sinuate so that the hind angles are very nearly right-angles; there is scarcely any indication of longitudinal foveæ. The elytra are parallel-sided, and scarcely wider than the thorax. The puncturation of the hind body becomes more sparing and obscure from the base to the apex.

Extremely like the European *H. concinnum*, Er., from which it differs in its much shorter and stouter antennæ, and in the somewhat more distinct puncturation of the hind body.

I obtained a single specimen from *débris* on the banks of the Torrens.

H. philorinoides, Fauv. I have taken under bark of *Eucalyptus*, both near Port Lincoln, and in the Adelaide district specimens which agree quite satisfactorily with the description of this insect, previously recorded only from Victoria.

COLYDIIDÆ.

DITOMA.

D. pulchra, sp. nov. Minus depressa; rufa; elytrorum disco infuscato; prothoracis lateribus valde explanatis fortiter

serrulatis, elytris tuberculis parum elevatis subseriatim dispositis. Long. 2 l. Lat $\frac{3}{4}$ l. (vix.)

Antennæ red, club not darker; third joint considerably narrower, but not shorter, than second, longer than broad; 4-9 small and subequal; the last two forming a large abrupt club. Head very strongly dilated in front of the eyes, the dilated portion forming on either side a large obliquely elevated lobe which completely covers the basal joint of the antennæ; the space between these lobes is occupied by the clypeus, and the outline of the entire surface thus formed in front of the eyes consists of about a dozen straight lines (of very unequal lengths) placed at angles to each other. The surface of the thorax is uneven, the disc being occupied by two costæ which run in a zig-zag manner from the front margin to the base (the space between them being depressed), outside which are some other less-defined costæ running both longitudinally and transversely, with depressed interspaces. The sides of the thorax are widely explanate, the greatest width (which is towards the front) of either explanate margin being about one-third the width of the whole space between the explanate margins. The general form of the explanate margins is comparatively narrow at the base gradually dilating all the way to the level of the anterior margin and then running on forwards in a projecting lobe which attains the level of the front of the eye, this projecting lobe narrowing to its apex, which is quite acuminate. The exterior edge of the explanate margin is serrate, the incisions becoming deeper, wider, and more parallel-sided from the front backwards till in the hinder half they reach half way through the explanate margin and are only about four in number; the deepest and widest incision of all, however, is at the *middle* of the margin. The surface of the head and thorax appear to be coarsely but very obscurely granulate. The margins of the elytra are not explanate but are conspicuously serrulate along their whole length. The middle of the disc of each elytron is nearly black, and the whole surface is striated, also is occupied by a system of coarse transversely confluent puncturation which seems to have no relation to the striation, and also bears three rows of large but slightly elevated, rounded, pale tubercles, the rows (counting from the suture) containing six, five, and two tubercles respectively, the inner two rows extending the whole length of the elytra, the external one being behind the middle and the tubercles in all the rows becoming more defined towards the apex. The whole surface is thinly clothed with short erect scale-like setæ, which tend to gather into pencils on the tubercles. The apex of each elytron is separately acuminate and a little produced.

This extraordinary insect must be very closely allied to the

New Zealand *Ditoma sellata*, Shp., described in the Transactions of the Royal Dublin Society (1886).

I met with a single specimen under the bark of a *Eucalyptus* on Mount Lofty in December, 1885.

D. obscura, sp. nov. Minus depressa; piceo-nigra antennis palpis pedibusque plus minusve rufis; prothoracis lateribus valde explanatis minus fortiter serrulatis, elytris crasse punctulatis striatis; interstitiis subplanis. Long., $1\frac{2}{3}$ l.; lat., $\frac{2}{5}$ l.

The structure of the antennæ head and thorax is almost as in *D. pulchra*, except that it is less strongly defined, the sides of the head being less dilated, the explanate margins of the thorax not quite so wide, and the serration of the same feebler. The elytra also are sculptured very similarly except that they are devoid of tubercles and of pencils of hairs, although otherwise the insect is similarly squamoso-setose.

I have two specimens of this species, taken near Roseworthy, South Australia.

D. perforata, sp. nov. Sat depressa; elongata; supra piceo-nigra, subtus rufo-picea; capite antice antennis palpis pedibusque plus minusve rufis; prothoracis lateribus sat fortiter serrulatis vix explanatis antice haud productis; elytris ad latera vix serrulatis, striatis, striis crasse rugulose punctulatis. Long., $1\frac{1}{2}$ l.; lat., $\frac{2}{5}$ l.

In this species the head is scarcely dilated in front of the eyes, its sides running forward nearly in an even line, and the front being widely and gently convex. The thorax is subtruncate in front, with the anterior margin, however, widely and roundly (though gently) produced in the middle; the base is very little narrower than the front; the length about equals the width; the sides are not distinctly explanate, but are cut into about ten very distinct teeth placed rather evenly along their margin, except that the front two or three are smaller than the rest; the surface is even, and covered with coarse but not deep puncturation, the punctures being much confluent and the space between them tending to run into wavy lines. The elytra are gently striate, each stria bearing a row of extremely coarse but not deep punctures, which almost meet across the interstices. The surface is sparingly clothed with fine short erect setæ.

I have seen about a dozen specimens of this insect, all taken in the Adelaide district.

D. parva, sp. nov. Sat depressa; elongata; piceo-nigra; capite antice, antennis, palpis, pedibus, humerisque obscure rufis; prothoracis lateribus vix explanatis, subtilius serrulatis, antice sat fortiter productis; elytris for-

titer costatis, lateribus antice serrulatis. Long., $1\frac{1}{4}$ l.; lat., $\frac{1}{3}$ l.

The head does not differ much from that of *D. perforata*. The thorax is a little wider than long, very little narrowed hindwards, the middle part of its anterior margin being roundly and gently produced; the sides are distinctly and rather finely serrate, and not distinctly explanate except at the extreme front, where they become so in the form of a kind of small lobe, which projects obliquely forward and outward; the surface is obscurely areolate, being intersected by some obscure ridges, between which the spaces are a little hollowed out. Between the suture and lateral margin, each elytron bears four strong costæ, of which the first and fourth meet close to the apex, and the second and third meet a little in front of the apex. There are two rows of punctures in each of the spaces between the costæ.

I possess a single specimen of this minute insect; it was taken at Woodville.

D. hilaris, sp. nov. Sat depressa; elongata; picea vel piceo-nigra; capite antice, prothoracis lateribus, elytrorum maculis nonnullis, antennis, palpis, pedibusque, rufis; prothoracis lateribus explanatis haud serrulatis antice productis; elytris costatis, interstitiis biseriatis punctulatis.

Head as in the preceding two species. Thorax rugosely but very closely and rather finely punctured, disc depressed, the depressed space being margined on either side by a very obscure elevated ridge. These ridges commence near each other on the anterior margin, run back a very short distance parallel to each other, then turn outward and describe a semicircle returning to their original distance apart at a point about two-thirds the length of the thorax from the anterior margin, and thence run parallel to the base, so that the depressed discal space is parallel-sided near the anterior margin, and near the base and is almost circular in the middle. Between these discal costæ and the lateral margins there is on either side another costa nearly parallel to the margin. The sides of the thorax are narrowly explanate and nearly straight; the front margin is in the middle, rather strongly elevated and arcuately produced and the explanate margins are produced forward, so that the front outline of the thorax is strongly bisinuate. The thorax is quite strongly transverse and scarcely wider in front than behind. There are four fine and not very conspicuous costæ on each elytron; the first commences at the base some distance from the suture and runs obliquely to the suture which it nearly joins at a distance from the base of about a third of the length

of the elytron, and then runs (close to the suture) to the apex. The other costæ are straight, all commencing on the base of the elytron; the second quite reaches the apex, the other two not quite. On the first interval between the costæ there is a red spot near the apex, on the second a red spot a little further from the apex and another somewhat in front of the middle, on the third a red spot just behind the middle and another near the base.

In respect of sculpture and puncturation this insect closely resembles the European *D. crenata*, Fab., but is much narrower and more elongate.

I have a single specimen from Roseworthy, and also one from Port Lincoln, which was taken under the bark of a *Eucalyptus*. The latter specimen has all the sculpture better defined than the former, the anterior red mark on the third interstice of the elytra scarcely traceable, and the lateral margins of the thorax obsoletely crenulate, but I have no doubt of its specific identity with the Roseworthy example. I have also seen the species among some insects submitted to me by Mr. Rothe.

D. lineatocollis, sp. nov. Sat depressa; elongata; nigra vel piceo-nigra; capite antice (nonnullis exemplis), antennis, palpis, pedibusque, rufis; prothoracis lateribus leviter explanatis, vix distincte serrulatis, antice minus fortiter productis; elytris fortiter costatis, interstitiis crasse transversim biseriatis punctatis. Long. $1\frac{1}{4}$ - $1\frac{1}{2}$ l. Lat. $\frac{2}{5}$ - $\frac{1}{2}$ l.

Closely allied to the preceding; I observe very little difference, except in the following characters:—The head is more roughly punctured; the elytra are devoid of red markings and have the costæ more sharply defined; and the punctures in the two rows in each elytral interstice are transverse, running into each other and scarcely leaving any distinct intermediate space between them. The thorax also is very differently sculptured on the surface; on either side a strong longitudinal costa springs from the base a little nearer to the middle than half way between the middle and the posterior angle and proceeds nearly parallel to the lateral margin more than half way to the apical margin when it turns at an angle and runs obliquely towards the centre line, but before reaching it becomes parallel to the margin again and then turns outward towards the lateral margin and runs in an irregular slight curve back to the base which it reaches at a point rather nearer to the lateral margin than to the point where the inner costa takes its rise.

I have taken this insect occasionally both in the Port Lincoln district and also near Adelaide.

BOTHRIDERES.

B. variabilis, sp. nov. Subopacus (elytrorum interstitiis alternis exceptis); niger, antennis tarsisque rufopiceis; prothorace transverso longitudinaliter corrugato, postice linea curvata impresso, lateribus angulatis; elytris postice rotundato-truncatis, apice productis. Long. 1—3 l.
Var. Colore piceo vel testaceo.

The thorax is gently transverse, the front margin strongly bisinuate and in the middle elevated, the anterior angles produced and acute; the outline of the lateral margins is very peculiar—from the apex of the anterior angles it is convex for a fifth part of its length, then it is slightly concave to just behind the middle where it is of the same width as at the commencement of the concavity, and at that point it is angulated and thence proceeds with a slightly concave curve to the base in such fashion that from the angle the thorax is gently contracted backwards. There is a slight vague depression on the front part of the disc and a little in front of the base there is a clearly cut arched line (its convex side turned towards the base) from which two fine lines run backward to the base. The elytra are strongly striated, the striæ rather indistinctly punctured. The alternate interstices are slightly shining, the third roundly convex—the fifth and seventh strongly, the ninth feebly, carinated. The interstices are devoid of distinct puncturation. The apex of each elytron is rather strongly produced (so that the hinder part of the lateral margin is deeply sinuate) and roundly truncated.

I know few insects more variable than this in respect both of size and color. It is widely distributed in South Australia and common. I have taken it also in Western Victoria. It occurs under the bark of *Eucalypti*.

I am not acquainted with *B. illusus*, Newm., and on that account should have hesitated to describe this species as new were it not that Mr. Pascoe (Journal of Ent., I., p. 465) in distinguishing his *B. equinus* from Newman's insect implies that the latter is totally unlike my *B. variabilis*.

B. tibialis, sp. nov. Sat nitidus; piceo-brunneus; prothorace subcordato leviter transverso, sat fortiter crebrius punctulato, punctis longitudinaliter confluentibus, latitudine majori antice posita, lateribus rotundatis, impressione obscura postice posita; elytris striatis, interstitiis punctulatis, his alternatim elevatis; tibiis fortiter dilatatis. Long. 1—2 $\frac{3}{4}$ l.

Var. Colore plus minusve rufo.

The thorax is widest immediately behind the anterior margin whence it narrows with a curved outline nearly to the base;

its sides then become parallel and the posterior angles are subdentiform; there is a scarcely noticeable impression on the front part of the thorax and a well marked one in front of the base. This latter consists of a short parallel-sided fossa, which is a little longer than wide and is not limited either before or behind by a definite line. In some examples the middle part of the fossa is scarcely depressed, so that the appearance is that of two short, parallel, longitudinal striæ. The sculpture of the elytra is exceedingly similar to that in *B. variabilis*; the elytra, however, are evenly glossy, the striæ are impunctate, and the interstices are punctate. The elytra are evenly rounded at the apex as in most other species of the genus. The widely-dilated tibiæ furnish the most striking character of this insect, by which it may be at once distinguished from all other species known to me; the antennæ also are exceptionally short and thick. This latter character probably differentiates it from *B. illusus* also—but however that may be, Mr. Pascoe (who appears to have examined the original type of *B. illusus*) states that that insect has a “deeply-impressed crescent-shaped mark” on the posterior part of its disc, and seems to speak of it as a decidedly larger species than *B. tibialis*.

I have taken this species in South Australia (Port Lincoln); also in Western Victoria.

B. costatus, sp. nov. Nitidus; piceo-rufus, elytris (suturâ infuscatâ exceptâ) dilutioribus; prothoracis postice angustati disco late concavo, spatio concavo postice in medio elevato, lateribus subrectis; elytris costatis, haud evidenter striatis, obsolete seriatim punctulatis, costis angustis. Long. $1\frac{1}{3}$ — $1\frac{3}{4}$ l.

The colouring of the elytra (chestnut, with a dark sutural stripe), which seems to be constant, will distinguish this species from all its Australian congeners, having the disc of the thorax similarly sculptured, except *vittatus*, Newm., which has the elytra quite differently sculptured.

Thorax about as long as wide, widest in front, thence gradually narrowed to the base, sides nearly straight, obsoletely angulated about the middle; front margin strongly elevated and produced in the middle, anterior angles somewhat prominent, hind angles obtuse and well defined, surface coarsely punctured with oblong punctures tending to longitudinal rows, disc occupied by a very wide depression which commences and is at its deepest a little behind the anterior margin, from the base a nearly impunctate space not depressed below the general level of the surface (and so elevated above the floor of the depression) runs up the depression to about the centre of the thorax. The sculpture of the elytra (which are of ordinary form

at the apex) is peculiar. At the base of each elytron close to the scutellum a strong costa commences edged externally by a kind of stria, but both soon become obsolete, the stria being represented in the hinder three-quarters of the elytra by a scarcely traceable row of punctures; then follow at intervals three costæ, which at the base are about equally strong with the abbreviated costa, and run evenly to the apex; outside the last of these (which commences at the shoulder) on the lateral declivous surface of the elytra are some more obscure slender costæ. The intervals between the costæ are non-striate, wide, and shining, and are devoid of punctures excepting that a faint ill-defined row of punctures can be traced quite close to each costa.

I have seen only a few specimens of this insect, which occurs rarely under Eucalyptus bark near Port Lincoln, but probably a long series would show great variety in respect of size.

B. vittatus, Newm. I am not sure whether I know this species, of which I have not seen the original description. Mr. Pascoe, however (in the paper on "Bothrideres," already referred to), tabulates it as having on the prothorax a broad shallow depression more or less raised along the median line, and on the elytra a dark sutural stripe; and in distinguishing from it some of his own species he appears to intimate that it has the elytra (at least near the suture) punctate-striate. A common and widely distributed South Australian *Bothrideres* presents the above characters, and I should consider it almost certainly *B. vittatus*, except that it has the side of the thorax very strongly angulated in the middle, a character that I can hardly suppose Mr. Pascoe would have failed to refer to if it were present in Newman's type, *B. vittatus* is said to be a Victorian insect.

CUCUJIDÆ.

CRYPTAMORPHA.

C. Lindi, sp. nov. Minus elongata; sparsim longe pubescens; rufo vel brunneo-testacea; capite sparsim crasse obscure punctulato; prothorace quam latiori haud longiori, confertim fortiter punctulato; elytris sat fortiter punctulato-striatis, transversim obscure pone medium infuscatis. Long. $1\frac{3}{5}$ l., lat. $\frac{1}{2}$ l.

The head is very shining, with some sparse and lightly-impressed but coarse puncturation; a strongly impressed line extends from the origin of the antennæ to the base, and a smaller oblique furrow runs towards the eye. The length and width of the thorax are equal, and it is scarcely narrowed behind; the sides are almost parallel nearly to the base, whence they converge gently; they are set with about six long hairs

springing from minute obscure prominences. The striation of the elytra is very slight, but the serial puncturation very large and strong, the interstices between the punctate striæ very narrow, scarcely convex, smooth, and shining. The transverse infuscation behind the middle is very obscure (in some specimens scarcely traceable); it crosses the suture, but does not nearly reach the margins. The antennæ legs and under-side scarcely differ in colour from the upper surface.

Much less elongate, and much less narrowed behind than *C. Desjardinsii*, Guér., with the head and thorax much more coarsely punctured, the antennæ differently coloured, &c.; from *C. triguittata*, Waterh., and *C. optata*, Olliffe, it differs in the puncturation of its head, and the long erect pubescence with which its whole surface is sparingly clothed.

Not very uncommon at Port Lincoln.

C. Olliffei, sp. nov. Sat elongata; sparsim longe pubescens; rufo vel brunneo-testacea; capite sparsim distincte punctulato; prothorace quam latiori haud longiori, profunde minus crebre punctulato; elytris sat fortiter punctulato-striatis, transversim obscure pone medium infuscatis. Long. 2 l., lat. $\frac{3}{5}$ l.

I do not observe any difference in colour or markings between this species and the preceding. It is, however, considerably more elongate and narrow, with the puncturation of the head evidently stronger and more defined, and that of the prothorax very much larger and more sparing. In other respects it agrees very well with the description (above) of *C. Lindi*, differing from the other Australian species in respect of the same characters that distinguish *C. Lindi* from them.

I have taken this insect both at Port Lincoln and near Adelaide.

C. Victoriae, sp. nov. Minus elongata; sparsim longe pubescens; fusco-testacea; oculis valde prominentibus; capite prothoraceque rufescentibus confuse infuscatis; hoc (leviter transverso) creberrime subtilius rugulose, illo crebre fortiter, punctulatis; elytris sat fortiter punctulato-striatis. Long. 2 l., lat. $\frac{3}{5}$ l. (vix.)

The single specimen before me of this insect is of a dull testaceous colour, the head and thorax reddish; much infuscated, but more on one side than the other, so that the infuscation is evidently abnormally distributed; there is a little obsolete infuscation about the base of the elytra also. The general form is somewhat intermediate between that of the preceding two, the prothorax by measurement being comparatively a little wider, however, while the head is much more strongly and closely punctured than in either of them, and the puncturation

of the prothorax is even closer and more rugose (though not coarsely so) than in *C. Lindi*. The eyes are even more prominent than in *C. Desjardinsii*. In other respects resembles the preceding two.

I have taken a single specimen in Western Victoria.

C. delicatula, sp. nov. Minus elongata; sparsim longe pubescens; rufo-testacea, pedibus dilutioribus, prothorace cuprescente; antennis gracilibus; oculis prominulis; capite crebre fortiter, prothorace (quam latiori vix longiori) creberrime obscure, punctulatis; elytris sat fortiter punctulato-striatis. Long. $1\frac{1}{3}$ l., lat. $\frac{2}{5}$ l.

In general form this little species resembles *C. Lindi*, though its elytra are a little narrowed at the base, and consequently less parallel. The eyes are almost as prominent as in *C. Victoriæ*, and the head is even more closely and strongly punctured than in that species, although the punctures are individually smaller. The thoracic puncturation somewhat resembles that of *C. Lindi*, but is very much closer and finer. Its comparatively long and slender antennæ distinguish it from all the other described Australian species of the genus. There is some obscure infuscation about the elytra which takes the form of several scarcely traceable fasciæ crossing the suture at intervals down its length, but not nearly reaching the margins.

Port Lincoln.

SILVANUS.

S. advena, Waltl. This widely distributed insect has occurred to me several times at Port Lincoln, doubtless introduced through the agency of commerce. I have not seen any previous mention of its occurrence in Australia.

S. unidentatus, Fab.? I have taken, both in South Australia and in Victoria, an insect which I should have no hesitation in referring to this species were it not that Mr. Macleay has described a closely allied form under the name *S. castaneus*, which Mr. Olliffe in his recent "List of the *Cucujidæ* of Australia" distinguishes from the cosmopolitan insect by several characters—some of which my examples certainly present. I find that the thorax is decidedly longer and on the sides more sinuated than in average European specimens of *S. unidentatus*, also that its anterior angles are more prominent; but I do not observe the peculiarities of colour and puncturation that Mr. Olliffe mentions as characterising *S. castaneus*. Among European examples of *S. unidentatus* there is some tendency to variation in length of the thorax, and in Hawaiian specimens (which Dr. Sharp confirms me in referring to this species) the thorax is certainly longer than in ordinary types, and there is a tendency to other variety, such as some elongation of the

antennæ. Taking all these considerations into account I do not think that the specimens before me should be treated as specifically distinct from *S. unidentatus*, Fab., and it would appear that they are certainly not in all respects similar to those which Mr. Olliffe speaks of under the name *S. castaneus*, Macl.

CRYPTOPHAGIDÆ.

CRYPTOPHAGUS.

C. affinis, Sturm? (var.? *Australis*), Brevis; sub-ovatus; convexus; pube sat longâ vestitus; ferrugineus; elytris subdilatioribus obscure fusco-notatis; prothorace dense punctato, lateribus bidentatis, dente anteriori obtusiusculo. Long. 11.

This little representative of a genus not hitherto recorded, I believe, as occurring in Australia is so extremely close to the European *C. affinis* that I hesitate to treat it as a distinct species, all the more since *Cryptophagus* is a genus very liable to be disseminated through the channels of commerce; at the same time it presents tangible characters that entitle it to be named as being at least a localised variety. Compared with *affinis* it is slightly wider and shorter, and the anterior lateral projection of the thorax is evidently (though not very much) less strongly developed. The sixth, seventh, and eighth joints of the antennæ also appear a little more slender as compared with the preceding joints than they are in *affinis*, and there is a little obscure infuscation about the elytra of most specimens, forming an obsolete triangle about the scutellum (discernible still more faintly in some examples of *affinis*) and a scarcely traceable fascia across the middle of the elytra (not at all indicated in any of my specimens of *affinis*).

I have met with this species near Adelaide, and also in the Port Lincoln district.

LATHRIDIIDÆ.

MONOTOMA.

M. rufa, Redt. I have a specimen taken by me at Port Lincoln, which I am unable to distinguish from European examples of this insect. It is, however, extremely small, measuring barely one line in length, and the antennæ appear a little elongate, so that it is just possible it may be a distinct closely allied species. The genus *Monotoma* has not, I think, been previously recorded as occurring in Australia.

LATHRIDIUS.

L. nodifer, Westw. This ubiquitous insect has not, so far as I know, been mentioned hitherto as Australian. At any rate

its name does not occur in Mr. Masters' catalogue. I have, however, taken it not uncommonly near Port Lincoln, generally under the bark of *Eucalyptus*.

L. costatipennis, sp. nov. Sat nitidus; minus elongatus; convexus; brunneus; antennis brevibus; capite longitudinaliter canaliculato; prothorace areolato pone medium constricto; elytris inæqualibus sat crasse seriatim punctulatis; interstitiis alternis subregulariter costatis. Long. 1 l.

Antennæ of the length of the thorax; basal joint large, the second a half smaller, joints three to eight much smaller still and subequal, nine and ten considerably larger and produced on the inner side, scarcely different from each other in size; apical joint about double the size of the tenth, equal to the basal joint, obliquely truncate at apex; head rather roughly and coarsely punctured, with a median channel; thorax moderately constricted behind the middle, its length and breadth scarcely differing, widest across the front, its anterior angles somewhat rounded but by no means effaced, its surface intersected by costæ (the interspaces of which are for the most part concave), there being a well-marked wavy costa on either side of the median line, another well marked forming the lateral margin, and some obscure ones besides; elytra with a vague transverse depression a little behind the base, and another immediately before the middle, marked with rows of rather large coarse punctures, the alternate interstices being sharply and evenly cariniform; the first and third of the costæ thus formed uniting at the apex, the second much shorter.

This insect bears much resemblance to *L. nodifer*, from which I observe the following distinctions:—The thorax is comparatively wider in front, with better marked anterior angles, and on the elytra the interstices of the rows of punctures are alternately quite flat and evenly keeled. From many other species of the genus it is distinguished by the two transverse depressed spaces (one behind the other) in the front part of the elytra.

I have taken a single specimen in Western Victoria.

L. satelles, sp. nov. Minus nitidus; minus elongatus; convexus; brunneus; antennis brevibus; capite longitudinaliter canaliculato; prothorace areolato, pone medium constricto; elytris æqualibus crasse seriatim punctulatis; interstitiis alternis regulariter costatis. Long. $\frac{5}{6}$ -1 l.

Very closely allied to the preceding, but I think certainly distinct. The elytra are entirely devoid of transverse depressions, and have evidently larger punctures forming the longitudinal rows, and the alternate non-carinate interstices are not quite so flat and shining. The colour varies from dark blackish brown to light brownish testaceous. In the darker examples

the antennæ are pitchy at the apex. The thorax is about equally wide across the front and the base.

Port Lincoln; not rare.

L. semicostatus, sp. nov. Minus nitidus; minus elongatus minus convexus; piceo-niger; labro mandibulis palpibus et antennis testaceo-rufis; capite longitudinaliter canaliculato; prothorace longitudinaliter costato pone medium minus fortiter constricto; elytris seriatim punctulatis; interstitiis 3° (apicem versus), 5° et 7° costatis. Long. $\frac{5}{8}$ l.

Much more depressed than either of the preceding two; the antennæ and head scarcely different from the same parts in *L. costatipennis*; the thorax (evidently wider in front than behind) with some distinct, though only slightly raised, longitudinal costæ, no evident transverse costæ, and the interspaces hardly concave; the elytra with very distinct rows of rather large punctures; the interval between the second and third of these rows scarcely raised except near the apex, the intervals between the fourth and fifth and between the sixth and seventh rows finely but distinctly keeled throughout their length.

The costæ on the thorax and elytra are very much less raised than in either of the preceding. The almost complete disappearance of the costation, in its anterior two-thirds, of the interval between the second and third rows of punctures on the elytra is a marked character.

Port Lincoln; a single specimen under bark of *Eucalyptus*.

L. nigromaculatus, sp. nov. Minus nitidus; sat elongatus; sat convexus; testaceus, nigro-maculatus; capite longitudinaliter canaliculato; prothorace obscure areolato, pone medium constricto; elytris sat fortiter punctulato-striatis, interstitiis convexis. Long. $\frac{5}{8}$ l.

The basal part of the thorax is quite as wide as the front; the raised lines and convex spaces on its surface do not seem to differ much in pattern from those on the thorax of *L. costatipennis*, but they are quite faint, and not easy to trace even under a Coddington lens. The elytra are distinctly striated; each stria has a row of large coarse punctures; the interstices are decidedly convex, but the alternate ones scarcely more so than the rest. A transverse depression crosses the elytra a little behind the base. The black markings on the elytra consist of an elongate blotch in front of the middle, between the second and fifth striæ, two or three spots near the lateral margin in the front half, the hinder part of the suture, and an irregular fascia which crosses the suture a little behind the middle, but does not nearly reach the lateral margins. Examples thus marked bear a striking resemblance to some of the small species of

Helophorus, but in some specimens the dark markings are more obscure, and the resemblance to *Helophorus* less noticeable.

Woodville, among dead leaves, &c. Not common.

L. minor, sp. nov. Sat nitidus; minus elongatus; minus convexus; rufus; capite haud canaliculato; prothorace angusto, antice quam postice paullo latiori, obsolete areolato, pone medium constricto; elytris seriatim punctulatis, interstitiis alternis subtiliter costatis. Long., $\frac{2}{3}$ - $\frac{3}{4}$ l.

Resembles *L. semicostatus* in shape but smaller, of a lively red colour, the thorax much narrower and the elytra differently costate. The thorax is scarcely a third the width of the elytra at their widest part, its surface is obscurely areolate, but the raised lines limiting the concave spaces are so faint that they cannot be traced continuously. The punctures in the rows on the elytra are shallow and rather small, the elevated alternate interstices very fine and slightly raised but quite clearly traceable. The third of these costæ is the most conspicuous; it commences at the shoulder and near the apex turns inward towards the suture, which it nearly reaches. In some examples the head and thorax are a little infuscated.

Port Lincoln; also near Adelaide.

L. apicalis, sp. nov. Minus nitidus; minus elongatus; sat convexus; fusco-brunneus; capite canaliculato; prothorace antice quam postice paullo latiori, distincte areolato pone medium constricto; elytris seriatim punctulatis, interstitiis alternis costatis; costis puncturisque apicem versus deficientibus. Long., $\frac{1}{2}$ l.

Rather closely allied to the preceding; apart from colour, however, this insect differs from it in being of a less parallel form (having the elytra considerably narrower at the base than behind) and in the sculpture of the elytra. These have the rows of punctures much more obscure and the raised alternate interstices evidently wider; the sculpture moreover becomes slight and sub-obsolete near the apex, whereas in *L. minor* it is most strongly defined in that part.

Port Lincoln.

L. punctipennis, sp. nov. Sat nitidus; sat elongatus; sat convexus; piceo-rufus; capite canaliculato; prothorace antice quam postice paullo latiori, areolato, pone medium constricto; elytris seriatim crassissime punctulatis; interstitiis alternis costatis. Long., $\frac{2}{3}$ l.

Very similar to *L. apicalis* in shape, but differs strongly from it and from all the preceding by the extremely coarse puncturation of the elytra. The punctures in the pairs of rows between the costæ are so large that the rows run into each other transversely and present the appearance of each interval between

the costæ being occupied by a single row of large quadrangular transverse pits, about 20 in each row. The costæ are very well marked.

Port Lincoln.

MYCETOPHAGIDÆ.

Typhæa fumata, Linn. I have taken this widely distributed insect at Port Lincoln. I believe it has not been previously recorded as occurring in Australia.

HETERO CERIDÆ.

HETERO CERUS.

H. Flindersi, sp. nov. Elongato-oblongus; niger, griseo-pubescent; prothoracis angulis posterioribus marginatis; elytris subtiliter punctulatis, testaceo-notatis; pedibus (genubus tibiærumque margine exteriori exceptis) prothoracis angulis anticis testaceis. Long. $1\frac{3}{4}$ —2 l.

Head and prothorax opaque, excessively finely punctured, the latter narrow in front, wide behind; its sides gently arched, its posterior angles obtuse. Elytra not much wider than the thorax, finely (but as compared with most species of the genus not particularly so) and evenly punctured. The lateral margins are testaceous, the testaceous border dilated and running out towards the disc of the elytra just in front of and just behind the middle; on the disc of each elytron are five narrow elongate testaceous marks; two in front of the middle almost parallel to each other, the external one a little nearer the front than the other, two behind the middle, side by side, parallel, and in some examples coalescing, and one near the apex (varying in form from a mere line to the shape of the Greek letter gamma) which in most examples runs into the testaceous lateral border. On the underside the hind-body has a testaceous border. The legs are pale testaceous, the external margin of the tibiæ and (in many examples) the knees and even the inner margin of the tibiæ infuscated.

Port Lincoln; also on the banks of the Torrens near Adelaide.

H. multimaculatus, sp. nov. Sat elongatus; fuscus, griseo-pubescent; prothoracis angulis posterioribus marginatis; huic margine laterali, antennis, pedibusque, testaceis; *elytris pallide fuscis, longitudinaliter fusco multimacu-

* While this paper was in the press, I received from Mr. R. H. Palleine a specimen *Heterocerus*, in bad condition and quite denuded of pubescence, which I believe to be *H. multimaculatus*. In that case, the species is evidently variable in respect of colour, as the example which forms this note has elytra entirely blackish-brown, except a longitudinal line from the base on either side the scutellum, a semicircle between it and the margin, the margin itself, and a few spots near the apex, all which are testaceous.

latis, confertim subtiliter punctulatis, leviter striatis.
Long., $1\frac{3}{4}$ l.

In shape and sculpture the head and thorax do not differ much from the same parts in the preceding species but they are rather more shining. The elytra are scarcely wider than the thorax, and the whole insect has an elongate parallel facies. The suture is broadly blackish in its anterior fifth part, the remainder of its length being very narrowly blackish. A fuscous line commences about the middle of each elytron close to the suture and runs parallel to the suture, almost to the apex, where it merges into a fuscous cloud, which overspreads the hind part of the suture but does not quite reach the apex. On each shoulder is a dark fuscous mark shaped like a horse-shoe, its convex edge touching the anterior margin. Immediately in front of the middle of each elytron, near to the lateral margin, is a large blackish spot between which and the suture is a narrow longitudinal blackish line. A little before the apex there is a dark mark shaped like z. The blackening of the anterior part of the suture and the horse-shoe-like mark on each shoulder produce together the appearance of five short and somewhat parallel longitudinal lines running out from the base, of which the external two on either side are joined on the anterior margin. The puncturation of the elytra is finely rugose and very close—much closer than in *H. Flindersi*.

This insect seems to resemble *H. Australasiæ*, Waterh., in general form, especially in the slight narrowing of the elytra behind the shoulders, but to be distinguished from it by having the elytra evidently striated, and very differently marked. It is difficult to specify the differences from the Queensland *H. Mastersi*, Macleay (which it resembles in having striated elytra), owing to the brevity of the description of that insect; but the first word in the description, "black," would seem to preclude the identification with it of a species in which there is no genuinely black colour at all. Indeed, except for this expression "black," and the mention of the striation of the elytra, there is nothing in the description to show that *H. Australasiæ* may not be identical with it.

I possess a single specimen, taken near the Grange, on the banks of the Torrens.

LAMELLICORNES.

PACHYGASTRA.

I have before me three specimens of an insect which I cannot doubt is that described by Germar under the name *Pachygastra Tasmanica*. The author is unsatisfactorily brief in characterising the elytral sculpture, saying merely that the elytra are faintly seriate-punctate, with interstices confusedly punctured,

and a single sutural stria. In the species that forms the subject of this note the rows of punctures (besides that in the strongly marked sutural stria) are eight in number on each elytron, and are placed in very obsolete striae, running in pairs, the interval between the two of each pair being slightly convex, narrow, and scarcely punctulate, while the intervals between the pairs are wide, flat, and distinctly punctured. Germar, moreover, gives no information regarding the propygidium and pygidium of his insect. In the specimens before me the former is finely and closely punctured, the latter coarsely and sparingly, but not deeply; and both are densely clothed with long hairs. The great width and strong external bidentation of the anterior tibiae, and the peculiar structure of the antennae, together with the long dense villosity of the underside and legs are well marked characters mentioned by Germar, the presence of which in the specimens before me seem to justify their identification with *P. Tasmanica*, more especially as I know that one (at least) of them was taken in the immediate vicinity of the place where most of the species described by Germar were collected.

Assuming the correctness of this identification, I think that this insect must be regarded as the type of a distinct genus, for which, of course, Germar's name *Pachygastra* must be used. Burmeister assigns the insect to *Haplonycha*. According to Schaum, Germar used the name *Pachygastra* by accident for *Prochelyna*, to which genus however that great authority, M Lacordaire, greatly doubts its appertaining. Having dissected a specimen, I am able to say that it cannot be referred either to *Haplonycha* or *Prochelyna*, the six-jointed club of the antennae (in one sex at least) and the peculiar labrum and front tibiae forbidding its association with the species for which M. Blanchard founded *Haplonycha*, while the toothed maxillae separate it widely from *Prochelyna*. This last named character seems inconsistent with any close relationship to the insects associated by Dr. Sharp under the name *Systellopides*, to which, nevertheless, I believe it in reality allied. [It is worthy of note that in one genus of that group, *Systellopus*, the learned author mentions the presence on the maxilla of a "small obscure black tubercle or tooth."] In one of the specimens before me the apical ventral segment is evidently longer than in the other specimens, from which I conclude that both sexes are represented in this short series, and that the differences between them are very slight. The following characters no doubt include some that may be considered generic; clypeus very strongly concave, separated from the forehead by an almost straight impressed suture; its outline nearly semi-circular, its margin scarcely elevated close to the forehead, but

(owing to the forward deepening of the concavity of the surface) becoming more so towards the front, till in the middle of the anterior edge it forms a rampart about half as high as the whole clypeus is long. The front face of the clypeus is perpendicular, and somewhat higher than the apical joint of the maxillary palpi is long; at the bottom of this perpendicular face the labrum projects in a plane exactly at right angles with the plane of that face. The labrum is a thin plate scarcely at all thickened in the middle, and only very slightly bent into an arch transversely; it is widely gently and triangularly emarginate in front with rounded front angles and sides, its width about three times its greatest length; it projects forward from the perpendicular face of the clypeus in such manner that each of its lateral margins is about as long as the apical joint of the maxillary palpi, and that its length down the middle is about half that of the sides (I do not know any other Australian *Melolontha* whose labrum approaches this form). The mentum is a little longer than wide, with its ligular suture not defined, abruptly narrowed at the insertion of the labial palpi and continuing to contract slightly thence to the apex which is subtruncate and about half as wide as the base; the surface is clothed with long hairs, and a membranous lobe projects obliquely on either side underneath the basal joint of the labial palpi. Of these latter the basal joint is elongate-cylindrical, the second almost globular, the third subconic, and about equal in length to the first. The maxillæ are of the same length as the mentum and of a very simple form, the outline externally being a slight even curve and internally an almost straight line; there are three or four distinct sharp teeth on the inner margin near the apex. The maxillary palpi are inserted very near the apex of the maxilla, than which they are not much longer; the basal joint is very small, the second and fourth about equal to each other, the third decidedly shorter than the second or fourth. The club of the antennæ is much longer than the other joints together, and is scarcely shorter than the entire head; its basal joint is a little shorter than the rest; of the joints not belonging to the club the first is longer than the other two together, and in shape is bent piriform; the second joint springs from the inner side of the first a little before its apex, and resembles the first in shape; the third is equal to the second in length, and is somewhat parallel-sided, in one example, however (probably a male), having a strong sharp tooth projecting from its inner face. The anterior tibiae are very peculiar; the external margin is strongly dilated with a curved outline to a distance from its base about equal to the length of the antennal club, at which point the tibia is about

two-thirds as wide as the antennal club is long; at this point a deep external emargination cuts the tibia half through, which thus reduced in width continues gradually contracting with a curve outwards till this lower contracted piece is a little more than half as long as the part above the external emargination, and is narrowly rounded off at the apex. The anterior tarsus is inserted at the part where the tibia is at its widest; a strong spine (as long as the basal joint of the tarsus) springs from the tibia just above the insertion of the tarsus; this latter is considerably longer than its tibia; the apex of its basal joint is about level with the extreme apex of the tibia. The intermediate and especially the hind tibiæ are much compressed and dilated towards the apex, the greatest diameter of the latter at the apex being scarcely less than half the length of the whole limb. These tibiæ have only one well-defined transverse carina each; the intermediate tarsi are about half again and the hind tarsi twice as long as their tibiæ. On the upper surface the hinder part of the head bears a number of long erect hairs; a fringe of similar hairs runs along the lateral margins of the prothorax; a dense mass of long woolly hairs protrudes from the base of the prothorax over the base of the elytra; the propygidium is thickly and the pygidium thinly clothed with long pubescence. On the under side the whole surface in front of the hind body is buried in very dense long and woolly pubescence which extends itself, though with less density, along the sides of the hind body. The femora and tibiæ are fringed with long hairs not very closely placed. The abdominal stigmata seem to be of the usual *Melolonthid* type and arrangement.

For the benefit of anyone who may not possess a copy of Germar's memoir I will complete the above remarks by saying that the insect which forms their subject is from 9 to 10 l. long and about 6 l. wide. It is of a clear chestnut brown colour, with the head darker, the external part of the anterior tibiæ and the apices of the other tibiæ black, and the pilosity pale fawn coloured. The hinder part of the head is closely and strongly and the clypeus and prothorax scarcely less strongly but much less closely punctured.

The three specimens known to me of this species were taken at various places around Adelaide.

As far as I can ascertain no insect has been described that can be considered congeneric with this.

MACLEAYIA.

This genus (described by me on page 29 of the present vol.) is evidently near to *Microthopus*, Burm., with which it is just possibly identical, if Dr. Burmeister might have been in error

in regarding as a male the specimen on which he founded his genus; although the antennal characters he gives would not be *quite satisfactory* if regarded as describing even the *female* of my *Macleayia*. I draw attention to this because there is undoubtedly very little difference between *Microthopus* and *Macleayia*, except in respect of their antennal peculiarities. Neither of the insects I described as appertaining to *Macleayia* seems to be specifically (even if it should prove to be generically) identical with *Microthopus castanopterus*.

RHOPÆA.

This genus is characterised with extreme brevity in the "Insecten Deutschlands (A.D. 1848)," where its author (Dr. Erichsen) introduces it (quite casually) into a tabulation of the *Melolonthid* genera, its place in which indicates some particulars regarding its antennæ, labial palpi, and claws. A note is added as follows: "New genus from New Holland; antennal club of the male six jointed, pygidium blunt at apex." Two years later M. Blanchard described the species (from N.S.W.) on which Erichsen had founded the genus under the name *R. Verreauxi*. Five years later still Dr. Burmeister characterised the genus at much greater length, slightly altering the definition of its antennæ in order to admit into it *Melolontha heterodactyla* of Germar. Finally, in 1856, M. Lacodaire mentioned the characters of the genus in his "Genera des Coléoptères," but ignored the alteration that Dr. Burmeister had made, remarking that Germar's insect ought to be the type of a new genus.

I am acquainted with a species which, I am quite satisfied, is *R. heterodactyla* of Germar, and with another species which I am satisfied cannot be generically separated from it, although the number of joints in its antennal club is different. There seems to be no good reason for excluding either of these from *Rhopæa* apart from the difference in the number of joints composing the antennal club, and I cannot look upon that alone as a valid generic distinction, especially when it is noted that the club seems to be formed in each case upon the same plan, the basal two and the apical six joints in all these species showing little variation, and the difference depending on whether joints three and four belong to the dilated or the undilated series. I think therefore that Dr. Burmeister should be followed in this matter, and I have no hesitation in attributing to the genus *Rhopæa* the following species although its male has an antennal club consisting of eight joints.

R. magnicornis, sp. nov. Minus elongata, breviter necdense pubescens; rufescens (nonnullis exemplis prothoracis disco obscuriori); capite prothoraceque densissime, elytris

duplo, punctulatis; subtus sterno dense longe villosa, abdomine breviter pubescenti

Maris flabello 8-articulato. Long. 12 l. Lat. 6 l.

The resemblance of this insect to *R. heterodactyla*, Germ., is very striking indeed. Placed beside that species it is somewhat wider and less elongate, with the thorax decidedly though slightly (in *heterodactyla* it is *hardly*) lobed behind, its margins a trifle less strongly crenulate (perhaps only an individual aberration), and its surface distinctly less finely and closely punctured. There does not appear to be any tangible difference in the sculpture of the elytra or pygidium, or in the structure of the legs. The antennæ are quite different; the basal joint is elongate piriform, the second very small, the third not much shorter than the first but prolonged internally at the apex into an elongate lamina not much shorter than each of the following seven joints, which with it form an arched club not much shorter than the anterior tibia.

There is a single specimen in the South Australian Museum marked as having been taken in South Australia.

N.B.—The South Australian Museum possesses also a specimen which I cannot doubt is the female of this species. It has the clypeus evenly rounded in front, the thorax more narrowly and distinctly lobed behind, and the antennal club smaller and only six-jointed, the basal two joints as in the male, the third longer than the first and cylindrical, the fourth feebly spined on the inner side. The apical ventral segment is very much shorter than in the male. The tarsi do not differ noticeably from those of the male, the hindmost pair in both sexes being scarcely shorter than their tibiæ.

HOLOPHYLLA (*Erichsen*).

This genus is so uncertainly characterised that there is a risk in attributing any species to it. It originally appeared in the "Ins. Deutsch." merely in a tabulation of the "Tanyproctini" with a note of three lines attached, mentioning two or three characters and stating that it was from New Holland. From its place in the tabulation it would appear that it has the abdominal segmental sutures not soldered together and only a single tooth on the claws. Dr. Burmeister (Handb. der Ent.) characterises the genus much more fully, but states that Erichsen was mistaken in saying that the abdominal sutures are not soldered together, and also (without remark on the discrepancy) attributes two teeth to its claws. Dr. Burmeister, however, does not compare *Holophylla* with *Rhopæa*, which from the description it must resemble very closely. Indeed, I cannot from the description discover any tangible distinction mentioned except that the joints of the palpi in the

former are much swollen, and that the head is wider than in *Rhopæa*. M. Lacordaire (in the "Gen. des Col.") throws no light on the matter, as he has not seen the type, but merely remarks on the original description.

The following species I attribute to *Holophylla*, as that genus is characterised by Dr. Burmeister. It presents all the characters definitely assigned to the genus, and differs notably from *Rhopæa* in the shortness of all its palpi, the joints of which (except the apical of the maxillary) are conspicuously swollen. Whether it be a true *Holophylla* or not it is evidently new and cannot be assigned to any other genus. Evidently belonging to the true *Melolonthidæ* it differs *inter alia* from *Rhopæa*, as already mentioned, and from *Lepidiota* and *Lepidoderma* in the entirely different structure of its antennæ. From the *species* of *Rhopæa* it differs as follows (*inter alia*):—From *Verreauxi* (known to me only by description) in its seven-jointed antennal club; from the other two in its very much more sparingly punctured prothorax, &c., &c.; from the already described species of *Holophylla* (*furfuracea*, Burm.) it differs by its larger size, spurred anterior tibiæ, &c., &c.

H. Australis, sp. nov. Sat nitida; elongata-ovata; supra pilis adpressis et setis fulvis longis erectis vestita; subtus antice dense fulvo-pilosa, postice breviter pubescens; nigro-fusca, antennis, oris membris, prothoracis lateribus, abdomine (inparté). et pedibus pallidioribus; supra duplo-punctata; tibiis anticis apice intus unispinosis. Long. 10 l., lat. 5 l.

Maris flabello 7-articulato.

The erect hairs on the upper surface are thick and long on the head, prothorax, and scutellum; on the elytra they grow shorter and more sparing backward. The clypeus is sinuately truncate in front, its margins strongly elevated, its surface coarsely punctured; the hinder part of the head is closely, roughly, and finely punctured; the declivous front part of the clypeus (visible from beneath) is pale testaceous. The prothorax is a trifle more than half again as wide as down the middle it is long, and is nearly twice as wide at the base as in front; its sides are crenulate and moderately rounded; its anterior angles are little marked, its posterior obtuse; its surface is sprinkled (closely at the sides, sparingly in the middle) with small and larger punctures, from the former of which spring short adpressed hairs, from the latter long erect ones. The scutellum is punctured like the prothorax. The elytra are similarly sculptured in respect of the small punctures, but the larger ones (while similar near the base) are confused behind by various obscure ill-defined furrows or wrinkles (somewhat

transverse near the margins), among which may be faintly traced some four or five running lengthwise down the elytra besides a well-defined sutural stria; the intervals between some of these furrows are not quite flat. The pygidium is closely and obscurely punctuate, and is clothed with very short, very closely set, erect hairs. The colour of the hind body varies from obscure ferruginous, a little clouded with dark brown, to nearly uniform dark brown. The legs do not seem to differ at all from those of *Rhopæa*, having the anterior tibiæ tridentate externally, the four posterior with a small external spine instead of a carina. The anterior tarsi are a little longer than, the intermediate equal to, the posterior a little shorter than, their tibiæ. On the hind tibiæ the inner apical spine is noticeably longer and straighter than the outer one.

In the male the basal joint of the antennæ is pear shaped and not very elongate, the second very short, the third nearly as long as the first (bent outwards, but with a strong angulation on the inner margin), the fourth slightly shorter than the remaining six, with which it forms a very elongate (as long as the anterior tibia down to the insertion of the tarsus) and narrow club.

In the only female before me the club is unfortunately broken off both antennæ; the apical ventral segment is very short.

I have received this insect from Mr. Rothe, of Sedan; there is a specimen from Kangaroo Island (taken by Mr. Tepper) in the South Australian Museum, which also possesses a specimen much paler in colour from Port Victor.

N.B.—I should conjecture that the apical spurs of the anterior tibiæ had been accidentally broken off the type on which Dr. Burmeister's description is founded. If this were the case *H. Australis* would still differ from it in its much larger size (*furfuracea* is said to be "somewhat smaller than *Rhiz solstitialis*") and in the well-defined sutural stria of the elytra, &c., &c.

LEPIDIOTA.

L. Rothei, sp. nov. Elongata-ovata; convexa; supra sparsim, subtus densissime, albo-squamulata; capite prothoraceque sparsius profunde, elytris crebre sat fortiter, punctulatis; his singulis quadricostatis. Long. 8 l., lat. 4 l. (vix).

The clypeus is about four times as wide as long, reflexed, and emarginate in front; it and the head are covered not very closely with large deep punctures. The prothorax is nearly twice as wide as down the middle it is long; its base is nearly half again as wide as its front margin; its sides are very strongly dilated, the prothorax being at its widest just behind

the middle; its surface is strongly punctured, very closely on the sides, quite sparingly in the middle; the lateral margins are crenulate. The scutellum is punctured uniformly with the disc of the prothorax. The elytra are widest considerably behind the middle; they are punctured rather more finely and much more closely than the disc of the prothorax, the distinctness of the puncturation being obscured by a great deal of transverse wrinkling; the system of puncturation is interrupted, but the transverse wrinkles only partially so by four very slightly elevated shining costæ on each elytra. The pygidium is punctured coarsely and closely, but not deeply, the propygidium only very obscurely. Each puncture on the upper surface is occupied by a small white scale, which in the punctures about the middle line of the insect scarcely protrudes and from those on the sides protrudes only slightly. The underside femora and tibiæ are punctured, the hind coxæ and hind body very closely, finely, and shallowly, the rest more strongly and sparsely. The puncturation of the underside, however, is quite hidden by mingled white and brownish scales, which are very closely packed except on the femora and tibiæ. The anterior tibiæ are strongly tridentate externally; the four hinder tibiæ have no distinct transverse carina, but an external spine on the middle of each of them. The hind tarsi are shorter than their tibiæ. The basal joint of the antennæ is quite half as long as the rest together. The club consists of three short joints.

A single specimen has been sent and kindly presented to me by Mr. Rothe, of Sedan. From its elongate apical ventral segment I think it is a male.

PANSCHIZUS.

P. pallidus, mihi. I think it not improbable that this insect (described by me on page 51 of the present vol.) is identical with *Anoplostethus opalinus*, Brullé, of which I had not seen the original description at the time I wrote. The genus *Anoplostethus* is stated by its author to have the claws all simple, except that the larger intermediate claw is very slightly bifid, and M. Lacordaire (Gen. des. Coléoptères, III., p. 373) states that *A. opalinus* is a very beautiful blue insect. As the insect I had before me is of a very pale yellow-green colour, and had the larger claw on all the tarsi quite strongly bifid, I took it to be certainly distinct from M. Brullé's species. The description of *A. opalinus*, however (now before me), agrees so well in general respects with my *P. pallidus* that I think they are probably founded on the two sexes of the same insect; as I have seen two specimens of it (one of them quite freshly taken), both agreeing in colour, and being neither blue nor especially

beautiful, I am quite unable to account for M. Lacordaire's statement. It will be observed that in my description of *P. pallidus* I mentioned its affinity to *A. opalinus* and its differing in colour and in the structure of the claws.

NOVAPUS.

N. Adelaidæ, sp. nov. Late oblongus; sat nitidus; subtus dense rufo-hirsutus; prothorace basin versus angustato, margine basali integro; elytris subpunctulato-striatis; scutello vix, vel obscure lineatim, punctulato. Long. $8\frac{3}{4}$, 11 l.; lat. (elytrorum) $4\frac{1}{4}$ —5 l.

Mas. capite cornu lato, erecto, apice leviter dilatato et emarginato; prothorace elytris latiori, medio a margine anteriore fere ad basin late profunde impresso.

Fem. capite haud tuberculato; prothorace elytris angustiori, haud impresso.

Closely allied to *N. crassus*, Shp., and differing from it chiefly by the female having no tubercle on its head and no impression on the front of the prothorax. The scutellum of *crassus* is said to be "strongly punctured." In this insect the extreme scutellar puncturation I have seen is a line of punctures following the shape of the scutellum a little within the margins, but generally the scutellum has only traces of such line or is smooth. The following are characters of *N. Adelaidæ* not mentioned by Dr. Sharp as possessed by *N. crassus*:—Front margin of prothorax suddenly concave behind the clypeal horn; prothorax fringed all round with pale reddish hairs, and pygidium similarly fringed round all its edges. The thorax of the female as compared with that of the male is more strongly punctured than I should from description judge it to be in *N. crassus*. In both sexes the prothorax is widest in front of the middle, and is narrowed thence to the front and base, but so that the actual front margin is less than half the width of the base.

I have seen a good many specimens taken in the Adelaide district.

N. striato-punctulatus, sp. nov. Late oblongus; sat nitidus; subtus dense rufo-hirsutus; prothorace basin versus minus fortiter angustato, margine basali integro; scutello confertim rugose punctulato; elytrorum disco antice sat fortiter punctulato-striato. Long. $12\frac{1}{2}$ l., lat. $6\frac{1}{4}$ l.

Mas. capite cornu sat lato erecto, apice leviter dilatato et emarginato; prothorace elytris haud latiori, medio a margine anteriori haudquaquam ad basin late profunde impresso.

Fem. Latet.

Differs from the preceding as follows:—The prothorax is less decidedly notched behind the head, its puncturation being coarser, its excavation occupying only its anterior four-fifths, and having less elevated sides, and its margins being less contracted behind (the base is fully seven-eighths of the greatest width); the scutellum is closely and roughly punctulate. The disc of each elytron to near the apex is strongly punctulate-striate, the sutural (except the sutural stria) and marginal portions being confusedly and strongly punctulate.

There is a single specimen in the South Australian Museum. The exact locality of its capture is not known.

PENTODON.

P. Australis, sp. nov. Piceo-niger; nitidus; clypeo antice bidentatus, postice bituberculatus; prothorace vix evidenter punctulato; elytris irregulariter striatis seriatim gemellato-punctulatis. Long. 7—8 l.

Maris tarsis anticis et unguiculo interno valde dilatatis.

Var. Corpore toto castaneo-rufo.

The colour is very variable, some specimens being almost black, some having the antennæ, palpi, and legs (especially the tarsi) reddish, some being entirely of a chestnut colour. The head is rather finely punctured and transversely wrinkled, except near the base, where it is almost smooth. The thorax is about one-third as wide again as long, is quite simple in both sexes, deeply emarginate in front, rounded and ciliated on the sides, with the front angles acute and the hind angles rounded; under a very strong lens the surface is seen to be dulled by minute close puncturation on which are some much more sparing and larger (but still very fine) punctures. On the disc of each elytron are about four striæ which are shortened before or behind, or at both ends, and also eight rows of gemellated punctures shortened more or less (in a variable manner—those near the suture are in some examples entire), some of which run in striæ; between the suture and the first row of punctures, and still more between the eighth and the lateral margin the puncturation is confused and very sparing; close to the apex it is confused and close. The anterior tibiæ in both sexes have three long, sharp, external teeth, with an additional one above and below the upper of the three, these additional teeth being usually very small, but in some examples not very much smaller than the others. On the underside there is scarcely any puncturation along the middle line, while at the sides there are rather fine punctures with very large ones sparingly intermixed, these last running in rows on the ventral segments.

In the male the ventral sutures are very strongly impressed, and there is an oblique membranous interval (very little narrower than the segment itself) between the fifth and sixth segments and another behind the sixth segment; the front tarsi have all the joints deformed (angulated beneath, angularly-emarginate at the apex and more or less transverse), increasingly so from the base onwards to the fifth joint, which is not transverse, but is a swollen mass about equal in bulk to the club of the antennæ and quite three times as large as the fourth joint. One of the claws is simple, the other a broad bent lamina, much like what one of the joints of the antennal club would be if similarly bent.

In the female the apical joint of the front tibiæ is a little swollen.

Notwithstanding the presence of organs of stridulation (in the shape of coarse confused granulation on the middle of the under surface of the elytra has the fringe of hairs which M. Lacordaire (Gen. Col. iii., p. 389 note) considers inconsistent with stridulation.

I have dissected a specimen and do not find it to differ generically from *Pentodon*.

This species is widely distributed in South Australia. I have seen but one male.

PSEUDOPIMELOPUS *gen. nov.*

Pimelopodi affinis; differt maris capite cornu armato, prothorace antice excavato (partis excavatæ margine postico medio elevato).

The genus *Pimelopus* was founded by Dr. Erichsen on a female *Dynastid* from Tasmania. Some time afterwards Dr. Burmeister described the male of a species which he called *Pimelopus nothus*. M. Lacordaire, in his great work on the genera of the *Coleoptera*, worked out from the descriptions of these two insects a complete diagnosis of the genus *Pimelopus*. The examination of a considerable number of specimens has forced me to the conclusion that *Pimelopus porcellus*, Er., and *P. nothus*, Burm., cannot be treated as generically identical. I am about to describe a new species from S. Australia as *Pseudopimelopus Lindi* which is evidently congeneric with and closely allied to *P. nothus*, Burm., but I have before me other species evidently congeneric with *P. porcellus*, Er., the males of which differ from the male of *Pseudopimelopus* in having merely a small tubercle on the head, and the thorax undistinguishable from that of the female. They possess the character of having elytra with a strongly swollen appearance and unusually wide in proportion to the thorax (as in the description of *P. porcellus*, Er.) which *Pseudopimelopus Lindi* has not, with

tarsi notably shorter than in *Pseudopimelopus* (another distinction noted by Burmeister between Erichsen's *P. Porcellus* and his *P. nothus*). In *Pseudopimelopus Lindi*, moreover, the hind and intermediate tibiæ have only one well defined transverse keel, and the basal joint of the hind tarsi is shorter across the apex than down its central line, while in the species I regard as true *Pimelopus* there are two strong transverse keels on the middle and hind tibiæ and the basal joint of the hind tarsi is decidedly wider across its apex than its length down the middle line. I have dissected several specimens without discovering any difference likely to be generic in the mouth organs.

P. Lindi, sp. nov. Nitidus; fusco-castaneus; capite ruguloso, clypeo antice bidentato; prothorace (maris parte excavatâ exceptâ) vix evidenter punctulato; elytrorum disco subtilius seriatim punctulato; subtus castaneo-pubescentis. Long. 10—11 l. Lat 5—5½ l.

Mas. capite cornu recurvo armato; prothorace antice excavato, parte excavatâ reticulatim rugatâ, hujus margine postico medio angulatim elevato.

Fem. capite vix bituberculato; prothorace æquali.

The colour varies to some extent, the head and prothorax in many examples being darker, and the underside and femora paler than the other parts. The sculpture of the head and clypeus consists of coarse puncturation or wrinkles which in some specimens (mostly males) seems to be partly obliterated. The clypeus is strongly transverse and moderately wide in front, where it is strongly bisinuate in an upward direction; in the male the clypeal suture forms the well defined lateral edges of a stout recurved horn, of which the front face rises almost from the front margin of the clypeus and the hind face from the level of the front of the eyes. The distance from the front of the clypeus to the apex of the horn is about equal to, and the height of the hind face of the horn above the head is about half as great as, the greatest width of the clypeus. In the female the clypeal suture is not strongly marked, and being least evidently defined in the middle gives the head a slight appearance of being bi-tuberculate. The prothorax in the male is just about, in the female a little less than, half again as wide as long; the front margin is rather more than half as wide as the base; the sides are strongly (male) or moderately (female) rounded; in both sexes the surface is very shining and hardly distinctly punctured; in the male there is a large flat-bottomed excavation occupying the middle two-thirds of somewhat less than the anterior two-thirds of the segment. The floor of this excavation is finely and reticu-

lately wrinkled, its hind margin is well defined and runs up from either side to a somewhat tubercle-like angulation in the middle. The scutellum is impunctate. The elytra are not quite twice as long as the prothorax; their sculpture is as follows: a well defined entire sutural stria followed by a smooth space, then five rows of very fine punctures which scarcely pass the middle of the elytron (the third of these rows is somewhat confused by means of a few scattered punctures outside the row), then a space in which the punctures of about two rows seem to be mixed together, then two more distinct rows a little longer than the rest, then an impunctate space extending to the margin; all the system of puncturation is placed somewhat obliquely, inclining towards the suture hindward; the hinder fourth part of the space outside the system of puncturation, and the apex, are finely, confusedly, and rather closely punctulate. In both sexes the propygidium is coarsely rugose and clothed with golden hairs, and the pygidium is closely punctulate and wrinkled near the base (where there is a fringe of long golden hairs) and impunctate or nearly so behind. The underside (except the ventral segments which are punctured only near the lateral margins) and legs are much clothed with long reddish or golden hairs. The intermediate ventral segments are much shorter in the male than in the female. The anterior tibiae are strongly tridentate externally in both sexes; the intermediate and posterior are unicarinate, with some indication of another carina near the base, the carina and the apex being fringed with a close-set row of thick scale-like bristles.

I do not find much tendency in this insect to vary. In some examples the sculpture of the head has a blurred appearance, as though it were rubbed out, and in some it consists of puncturation rather than wrinkles, and *vice versa*. The development of the hind margin of the prothoracic excavation in the male also varies a little; in the specimen on which the above description was founded that margin rises in a nearly straight line from either side to the central prominence which is not directed upward so strongly as in some other examples, while it is not unusual to find the sides of the hind margin of the excavation more or less decidedly sinuous on either side of the central prominence.

Apparently allied to *Pimelopus nothus*, Burm. (which as mentioned above, is evidently a member of this genus). Dr. Burmeister distinguishes that insect from the next to it, *P. lavis* (of which only the female is known, and therefore the generic position is doubtful), by (among other characters) its clypeus not being bidentate in front; this character, together with the presence of some elytral striation, will also distinguish

P. nothus from *P. Lindi*, The elytra of *P. laevis* are devoid of distinct puncturation. Dr. Sharp has favored me with the information that *P. Lindi* bears close specific resemblance to *Cheiroplatys Fischeri*, Montrouzier (from New Caledonia), but it is, no doubt, distinct from that insect, being certainly not a *Cheiroplatys*.

I have specimens from Port Lincoln, Fowler's Bay, and Ouldea; that from the last-named locality was collected by Professor Tate. An unticketed female in the South Australian Museum has the clypeal suture a little strongly developed, but does not differ otherwise from the type.

PIMELOPUS.

As I have said above, I have no doubt that *Pimelopus porcellus*, Er., is congeneric (not as Dr. Burmeister supposed with his *P. nothus*, but) with certain forms of *Dynastidæ* in which the hind and intermediate tibiæ are strongly bicarinate transversely, and their tarsi very short with the basal joint extremely compressed and dilated, while the male has merely a small tubercle on the head and the prothorax quite simple. In all of them known to me the prothorax has a well defined impression at the base on either side. The first species described below may be *P. porcellus*, Er. It agrees fairly well with the rather brief description, but if it be identical probably Erichsen was in error in regarding the type as a female. In any case a full description will be useful.

P. porcellus, Er. (?) Oblongus Nigro-brunneus, capite obscure rugato; prothorace haud evidenter punctulato; elytris fortiter crasse punctulatis, disco fortiter striatis. Long. 9 l.; lat. $4\frac{1}{2}$ l.

Mas. Capite tuberculato; tibiis anticis minus dilatatis externe leviter vel vix tridentatis.

Fem. Capite vix subtuberculato; tibiis anticis obtuse tridentatis.

The clypeus is not distinctly bidentate in front, and its margins are hardly reflexed; its suture is scarcely traceable, and in the male is furnished in the middle with a large, but only slightly raised, tubercle. The prothorax is not quite half again as wide as long, its base nearly twice as wide as its front margin, which is only slightly concave; its sides are rather strongly rounded and it is widest behind the middle; under a very strong lens its surface is seen to be minutely and closely coriaceous; it is margined in front and at the sides; its anterior angles are acute, the hind angles almost rounded off; its base is distinctly bisinuate. The scutellum is large and impunctate. The elytra are considerably wider than the prothorax and are

at their widest behind the middle; their sculpture is as follows:—A strong, deeply punctulate sutural stria, then a space sparingly and confusedly covered with large, coarse punctures, then six strongly punctured striæ, separated by convex interstices, then a space extending to the margin, in which the puncturation is confused and much finer, but which contains (near the front) traces of two seriatly punctulate striæ; the discal system of punctured striæ fails a little before the apex, and is very oblique, so that the inner of its striæ is wide apart from the sutural stria at the base, but nearly meets it behind; the apex is closely, confusedly, and rather coarsely punctured; the humeral calli are almost smooth. The breast and legs are moderately clothed with longish red or golden hairs. The pygidium bears a puncturation which is rather coarse and close about the base, but becomes gradually fine and very sparing towards the apex. The front tibia are not particularly broad, and in the male are very obtusely tridentate (perhaps “strongly trisinate” would be more correct) externally; in the female they are distinctly tridentate.

This appears to be a variable species. I have specimens differing from the types described above, in having the clypeus more distinctly bisinuate in front, the thorax perceptibly (under a strong lens) punctured, the anterior tibia (in both sexes) more sharply dentate externally; the female without any trace of a tubercle on the head, the size considerably larger (up to 11 l.). It is possible that I may be confusing several closely-allied species, but I find the foregoing differences from the type so uncertainly and variably blended in various specimens that I do not feel justified in treating them as distinct. The strong punctulate striæ on the disc of the elytra do not seem to vary, and are, I think, a leading character of the species.

Appears to be widely distributed in S. Australia, occurring at any rate from Port Lincoln to the Adelaide district.

P. crassus, sp. nov. Late oblongus; sat nitidus; rufescens; capite rugoso; clypeo antice haud bisinuato; prothorace obsolete punctulato; elytris minus fortiter punctulatis, antice leviter striatis; tibiis anticis externe fortiter tridentatis. Long. 11 l.; lat. 6½ l.

Mas. Suturâ clypei elevata in medio tuberculatâ.

Fem. Capite haud tuberculato.

In general form and proportions this species resembles *P. porcellus* in all respects except that it is even wider and more massive looking, with the sides of the prothorax evidently more strongly rounded. It differs as follows:—The clypeus is evenly truncate in front, with its suture distinct, in the male

forming a fine, distinct keel from the tubercle to the margins; the elytra have on the space next the sutural stria only a few large faint punctures, then three pairs of rows of rather large, lightly impressed punctures placed in feeble striæ, both striæ and punctures failing a little behind the middle of the elytron, then a nearly impunctate space extending to the margin, and the apex is finely, faintly, and closely punctured. The pygidium, underside and legs do not differ noticeably from those of *P. porcellus* (?). The apical ventral segment in the male (as usual in this genus) has a sinuous line (which is ciliated with golden hairs) running across it from margin to margin.

The system of faint puncturation on the prothorax and the absence of any trace of a protuberance on the clypeus of the female will distinguish this species from *P. porcellus*, Er.

I possess a single pair taken by Professor Tate at Ouldea.

P. (? hujus generis) dubius, sp. nov. Oblongus; minus latus; nitidus; obscure rufescens; capite rugoso; clypeo antice subfortiter bisinuato; prothorace haud evidententer punctulato; elytris minus fortiter punctulatis, vix striatis; tibiis anticis externe fortiter tridentatis. Long. $7\frac{1}{2}$ —9 l.; lat. $3\frac{3}{4}$, $4\frac{1}{4}$ l.

Mas. Sutura clypeali elevatâ in medio tuberculatâ.

Fem. Capite haud tuberculato.

In the few examples that I have seen of this insect the suture is rather widely infusate, and in some specimens also the head and apex of elytra (these latter parts I find liable to infuscation in all the species of the genus). The head scarcely differs from that of *P. crassus*, except in having the clypeus very distinctly bisinuate in front. The prothorax scarcely differs in shape or proportions from that of *P. porcellus* (?). Under a strong Coddington lens it is seen to be sprinkled towards the sides with very fine needle-point punctures. The scutellum is impunctate. The sculpture of the elytra is almost exactly as in *P. crassus*. The rows of punctures on the elytra, however, do not run noticeably in pairs. The pygidium and underside do not differ noticeably from those of the other species I have described.

I hesitate much to refer this insect to *Pimelopus*, and think it very likely that a new generic name may be required for it eventually. It is a distinctly narrower insect than any of the species described above, and has not the posteriorly swollen appearance that they present. Its middle and hind tibiæ also are less stout, and are only unicarinate on the external margin. In these respects it approaches *Pseudopimelopus*, but its tarsi and sexual characters are distinctly those of *Pimelopus*. As I have not a specimen that I can devote to dissection, I place the species for the present under *Pimelopus*.

I have seen specimens only from the Port Lincoln district; they were dug up from under the soil near the roots of a *Eucalyptus*.

CAVONUS.

Cavonus Sharpi, sp. nov. Supra nigerrimus; nitidus; subtus sat dense longe fulvo-pubescent; elytris obscure punctulato-substriatis, apice lævigatis. Long., 8 l. Lat., 5 l. (vix).

Mas. Prothorace disco antice excavato, margine anteriore in cornu brevi producto.

Fem. Latet.

Clypeus deflexed, rounded in front; it and the head roughly and closely punctured; an obscure transverse keel runs across the middle of the vertex, between which and the basal keel of the clypeus the forehead is feebly concave. The prothorax is about half again as wide as the distance from its base to the apex of the horn; the sides are moderately rounded, the base scarcely bisinuate and about twice as wide as the front margin. The excavation occupies the anterior three-quarters of the disc and its surface is coarsely and somewhat reticulately wrinkled; its sides are not elevated. The frontal horn of the thorax, viewed from the side, rises above the head nearly as much as the length of the clypeus; it is inclined forwards and a little turned up at the end, which is blunt. The scutellum bears a few scattered punctures. The elytra can scarcely be called "striate." They are marked with rows of punctures which do not nearly reach the apex, but hardly fail in front (except absolutely on the humeral callus). The pygidium is not very nitid, its puncturation well defined about the base but becoming feebler hindward. Differs from *C. armatus*, Sharp, in the presence of a frontal keel, in the shorter anterior horn of the prothorax, and in the absence of horn-like elevations of the sides of the excavation; also in the less indication of striæ on the elytra, and the greater regularity of the rows of punctures on the same. The elytra also are not quite so short in comparison with the prothorax.

A single specimen occurred at Port Lincoln.

C. sculpturatus, sp. nov. Supra nigerrimus; sat nitidus; subtus sat dense longe fulvo-pubescent; elytris fortiter sat æqualiter punctulato-striatis. Clypeo postice fortiter elevato-carinato. Long., 9 l. Lat., 5 l.

Mas. Prothorace disco antice excavato, margine anteriore in cornu sat elongato producto.

Fem. Latet.

The general resemblance of this species to the preceding and to *C. armatus*, Shp., is so close that it will save useless repeti-

tion if I merely specify its distinctive characters. The antennal club is shorter, being not quite so long as the preceding joints together; the clypeus is quite strongly transverse, and is separated from the vertex by a strongly elevated keel; the excavation of the thorax scarcely extends beyond the anterior two-thirds of that organ; the frontal horn of the thorax is distinctly longer than that of *C. Lindi*, and (as in that species) is more erect than that of *C. armatus*, being also much stouter than that of either of its congeners; the scutellum has a strongly punctured furrow following its outline a little within its margin; and the elytra are strongly punctulate-striate, the sculpture continuing, almost without diminished strength, to the apex. The whole insect is a little more elongate than either of its congeners.

I have a single specimen taken by Professor Tate at Ouldea. *C. parvus*, sp. nov. Supra nigerrimus; subtus sat dense longe fulvo-pubescens; elytris obscure punctulato-substriatis, apice lævigatis; fronte transversim concava. Long. 6 l., lat. $3\frac{1}{2}$ l. (vix).

Mas. Prothorax disco antice excavato, margine anteriori angulatim elevato.

Fem. Latet.

The head is very peculiar; except in being less punctured behind, it resembles that of *C. Lindi* generally, and especially in having a transverse concavity running across it just behind the clypeus; this concavity, however, is not keeled behind, but the abruptness of its hinder declivity makes it much more conspicuous than that of *C. Lindi*. The prothorax also scarcely differs from that of *C. Lindi*, save that in place of the anterior horn the front margin is merely angularly defined in an upward direction, and scarcely pointed forward over the head. The scutellum, elytra, and antennæ also resemble those of *C. Lindi*. The apical joint of the maxillary palpi is distinctly less cylindrical and more acuminate at the apex than in the other species of *Cavonus* described.

I possess two specimens of this insect, one taken at Wallaroo, the other at Port Lincoln.

C. armatus, Shp. In the South Australian Museum are three very small specimens (the smallest barely 6 l. in length), which I cannot distinguish from this species. The clypeus, however, certainly appears narrower, and is more sharply margined behind. It may possibly be a distinct very closely allied form. There are also two specimens from Kangaroo Island, picked up dead in the scrub by Mr. Tepper, which differ from typical *C. armatus* in having the hinder elevations of the prothorax much blunter and less prominent; they do not appear to be specifically separable from the type.

NEOCAVONUS, *nov. gen.*

(DYNASTIDÆ, ORYCTOMORPHIDÆ).

Cavono affinis; differt mento antice deflexo, palpis maxillaribus incrassatis, prosterno antice vix acute producto, maris prothorace ad latera haud angulatum elevato.

The insect for which I propose this name has the general aspect of *Cavonus*, from which I cannot distinguish it by any characters likely to be generic except the four alluded to above. The first of these is very remarkable; it is as though the anterior contracted portion of the mentum were bent down and folded underneath, so that the organ appears to be widely truncated just in front of the insertion of the labial palpi (which spring from the under surface). The basal three joints of the maxillary palpi are like those of *Cavonus*, but the apical joint is remarkable; it is only about twice as long as wide, truncate at the apex, and of even width nearly to the base, where it is contracted. I think the mentum must considerably resemble that of *Teinogenys*, but the absence in the males of a frontal tubercle and the presence of a thoracic horn seem inconsistent with a place in that genus, even if the maxillary palpi be not (as implied in the diagnosis of *Teinogenys*) different.

N. niger, sp. nov. Supra sat nitidus, subtus dense sat longe brunneo-pubescentis; niger, antennis palpis tarsisque piceis; elytris fortiter punctulato-striatis; clypeo fortiter elevato-marginato. Long. 8 l., lat. 4 l.

Mas. Prothoracis disco a basi ad apicem excavato, margine antico medio in cornu brevi elevato; antennarum clava sat angusta, articulis reliquis conjunctis paullo longiori.

Fem. Prothorace irregulariter longitudinaliter canaliculato; antennarum clava brevi.

Clypeus rounded in front, with an entire elevated edging, which is straight across the base. It and the hinder part of the head are rather rugosely punctulate. Prothorax about half again as wide as long, moderately finely, and closely punctured about the sides, the disc almost smooth except the excavated or depressed part, which in both sexes is largely but very shallowly punctured; in the male this is a *roundly* concave excavation commencing at the base and terminating in front in a conical horn slightly arched backwards and about as long as its distance from the clypeal suture; in the female it is a shallow interrupted impression not quite reaching the front. The sides of the prothorax are strongly rounded, the base gently bisinuate and about twice the width of the front edge, which is strongly concave and roundly produced in the middle. The scutellum is punctulate about its base and middle. The elytra

are decidedly wider than the prothorax, with nine rows of large coarse punctures, those on the disc running in striæ, which are well defined near the base, but fail near the apex. There are also some coarse punctures scattered about the elytra independently of the rows. The pygidium in both sexes is punctured in front and smooth behind. The legs do not appear to differ in the sexes; the anterior tibiæ are tridentate externally. The ventral segments are very much shorter in the male than in the female.

Taken by Mr. Rothe, near Sedan.

N. (?) occidentalis, sp. nov. Supra piceo-niger; antennis palpis pedibusque ferrugineis; nitidus; subtus longe sat dense fulvo-pubescent; elytris vix evidenter striatis, obscure seriatim punctulatis. Long. $6\frac{3}{4}$ l., lat. $3\frac{1}{4}$ l.

Mas. Prothoracis disco antice impresso, margine anteriori breviter acute elevato.

Fem. Latet.

Clypeus transverse, its front margin subtruncate and quite as wide as its base, its sides and front angles somewhat rounded, its edges not sharply defined, its surface somewhat concave transversely. Head abruptly depressed behind the clypeus, so that viewed from behind there appears to be a raised keel (which does not really exist), limiting the clypeus behind; the frontal depression is not distinctly limited behind, and is vaguely narrowed backwards. The head and clypeus are rather closely roughened, but hardly distinctly punctured. Prothorax sparingly and very finely punctured (scarcely perceptibly without a very strong lens), except in the depression, where the puncturation is coarser; the depression is nearly round, and occupies the middle third part of the width and the anterior third part of the length of the thorax. The anterior margin of the prothorax is scarcely half as wide as the base, it is moderately emarginate and is raised into a sharp tubercle in the middle; the sides diverge backward for the first third part of their length and then (viewed from above) appear to continue nearly parallel to the base, which is scarcely bisinuate. The real margin is invisible from above and is regularly rounded. The anterior angles are acute, the posterior roundly obtuse. The scutellum is roundly triangular, smooth, and with an impressed line down the middle. The elytra have a well-defined sutural stria and faint suggestions of other striæ here and there. They are sparingly and faintly punctured, the punctures in places tending to run in rows.

I attribute this insect only with hesitation to the genus *Neocavonus*. It is a narrower and more elongate parallel species than any other *Oryctomorphidæ* known to me. Its mentum,

maxillæ, and maxillary palpi, however, are exactly those of *N. niger*, while the apical joint of the labial palpi is distinctly shorter and more ovate. The legs (as in *N. niger*) are those of a *Cavonus*. The antennæ (as in *N. niger*) are ten-jointed; their club is not very wide, and in length scarcely exceeds the rest of the joints taken together. The shape of the clypeus is very different from that of *Cavonus* and *Neocavonus*, but there is sufficient clypeal variation among species that seem otherwise inseparable from *Cavonus* to render it prudent at present to make as few genera as possible until the structural characters of more species have been recorded. At a first glance this insect is distinctly suggestive of male *Isodon*, from which the elongate subcylindric basal joint of its hind tarsi, its totally different clypeus, the elongate club of its antennæ, and the complete dissimilarity of its maxillæ, of course, separate it very widely.

I possess a single specimen taken by Professor Tate at Fowler's Bay.

CORYNOPHYLLUS.

C. Andersoni, sp. nov. Convexus; nitidus; castaneus; capite prothoraceque nigro-piceis; subtus dense fulvo-pubescens; prothoracis lateribus subtus concavis; elytris punctulato-substriatis. Long. 8 l., lat. 4½ l. (vix).

Mas. Capite medio fortiter transversim carinato; prothorace antice impresso, margine anteriori medio acute tuberculato.

Fem. Latet.

The clypeus appears to the eye scarcely transverse, but by measurement it is decidedly so. Its outline viewed from the front is a continuous curve, except at the base, which is straight, and is raised gradually (from a little within its extremities on either side) into a keel which is somewhat less elevated than the projection on the front of the thorax, and of which the upper outline is sinuate. The head behind the clypeus is flattened down the middle. The whole head is shallowly and coarsely, but not closely, punctured. The prothorax is very finely and very sparingly punctured, the puncturation more pronounced down the middle, and especially in the depressed part. Its base is about half as wide again as its front margin, its width quite twice its length down the centre. Viewed from above, its sides (which diverge from the anterior angles much more strongly than in any other of the genus known to me) seem to form three curves, meeting each other at roundedly obtuse angles; viewed from the side the margin appears to form from the base to the apex a strong even curve, the convex side of which is the upper (not the lateral) outline

of the prothorax—*i.e.*, as though one were looking through the arch of a bridge. The limits of the thoracic impression are very undefined, but it occupies something like the middle fourth part of the anterior third part of the surface. The front margin is very strongly bisinuate, and bears in its centre a sharp erect horn, which rises above the surface of the head a little more than the length of the second joint of the antennæ. The base of the thorax also is strongly bisinuate, and there is a vague impression on the surface at the base on either side. The scutellum is puncturated, but is entirely covered by a bunch of long yellow hairs which project from under the thorax. The elytra are scarcely striated, and are marked with rows of moderately large shallow punctures, which become very obscure near the apex. The basal third part of the pygidium is moderately punctured, the apical two-thirds smooth, or nearly so. The legs are rather long and slender, especially the tarsi.

In the specimen before me the basal seven joints of the antennæ together are nearly two lines in length, the club is nearly three lines long, one and a half wide, being very much longer than the entire head.

Port Lincoln, a single specimen.

A second male example of *Corynophyllus* from the Port Lincoln district differs from the preceding in being smaller (7 l.) and of an uniform chestnut colour, with the prothorax proportionally narrower, its surface more strongly punctured and its sides less abruptly diverging from the anterior angles. As, however, it possesses the remarkable form of prothorax which makes that segment appear arched upwards when viewed from the side, and in other respects closely resembles *C. Andersoni*, I hesitate to regard it as really distinct.

I possess also a female *Dynastid* taken at Port Lincoln which I have no doubt is the female of this species. It differs from the male in its uniform dark piceous colour, in the clypeal suture being scarcely elevated, in the thorax being unarmed in front and having no impression on its surface except what looks like the middle part of a feeble longitudinal channel which is obsolete in front and behind, in its much shorter antennæ the club of which is shorter than the other joints together, in its prothorax much narrower in proportion to the elytra, and in the elytra being decidedly at their widest near the apex and longer in proportion to their width. The large tuft of hairs protruding over, and covering the scutellum, is absent.

C. modestus, sp. nov. Convexus; nitidus; antennis, palpis, tarsis, elytris, et abdominis segmentis ventralibus (segmento ultimo excepto) rufis vel rufo-piceis; elytris

striatis, striis fortiter punctulatis; pygidio æqualiter confertim subtiliter rugato. Long. 7 l., lat. 4 l.

Mas. Capite medio cornu brevi armato; prothorace antice profunde impresso, margine anteriori medio acute tuberculato.

Fem. (? hujus specei). Capite haud cornuto; prothorace antice haud impresso, margine anteriori vix angulatim producto.

In the male the head does not appear to differ much from that of the preceding species except that the clypeus is a little blunter in front with the impression on the hind part better defined; and that there is a strong conical horn, which is a little inclined backward, is blunt at the apex, and rises from the head on its hinder (perpendicular) side quite as much as half the length of the clypeus, being fully twice as high as the frontal elevation of the prothorax. The prothorax is rather more than half again as wide as its length down the middle; its base (which is scarcely bisinuate) is more than half again as wide as its front margin, which is strongly bisinuate, and raised in the middle into a small sharp tubercle; its frontal impression is very little larger, but much deeper, than that of the preceding species; its anterior angles are well defined, the posterior rounded off; its sides, viewed from above, appear somewhat regularly, but not strongly, rounded; the true margin, viewed from the side, appears somewhat sickle-shaped, proceeding backward in a rather straight direction for a little distance from the anterior angle and then making a strong curve outward, which is continued right round to the base of the prothorax; the surface is very finely and very sparingly punctured, except in the frontal impression where the puncturation is coarser and closer. The puncturation of the scutellum is coarse, and varies a good deal in closeness, some specimens having only about a dozen punctures on that organ mostly near the base, others having the same pretty closely punctured. The elytra are irregularly and not strongly striated, and are marked with rows of strong punctures, the punctures near the suture and margin tending to lose their serial arrangement. The pygidium is somewhat uniformly and strongly sculptured, the sculpture being of such sort as to give the segment a worm-eaten or corroded appearance. The antennal club is as long as the thorax, its width being about half its length.

The South Australian Museum contains a specimen which is certainly, I think, a female *Corynophyllus*. I refer it to this particular species chiefly on account of its possessing the same peculiar colouration of the ventral segments, of which the last is black while the rest are red. It differs from the male in

having the antennal club scarcely longer than the clypeus, the horn on the head replaced by a transverse keel, the thorax evenly convex, with scarcely any indication of a projection on its anterior margin, the sides of the thorax more regularly rounded, the pygidium more distinctly punctured with a less corroded appearance, and the ventral segments considerably longer.

There are several specimens of this species in the South Australian Museum, one of which is ticketed as having been taken at Port Victor.

ANEURYSTYPUS *gen. nov.*

Corynophyllo affinis; differt mento angusto elongato, palporum maxillarium articulo secundo quarto haud breviori, hoc apice truncato; antennarum clava angusta.

The greatest width of the mentum is less than half its length, its surface is concave. This genus appears to differ from *Teinogenys* by having the mentum differently shaped, also by its palpi (the description of *Teinogenys* implies that the palpi in that genus do not differ from those of *Corynophyllus*), and by the absence (in the male) of a tubercle from the head and the presence of one on the front of the thorax. From *Cavonus* and *Neocavonus* it differs (*inter alia*) widely in the shape of the mentum.

A. calvus, sp. nov. Castaneus; subtus dense longe fulvo-hirsutus; capite crasse nec crebre, pygidio (apice excepto) prothorace et scutello subtilius sat sparsim, punctulatis; elytris punctulato-substriatis. Long., 8 l., lat., 4½ l. (vix)

Mas. Prothorace antice impresso, margine anteriori acute elevato.

Fem. Latet.

The clypeus is transverse, rounded in front, and with a strongly turned up edge; it is separated from the rest of the head (which is flattened or a little concave) by a strong transverse keel. The prothorax is nearly twice as wide as down the middle it is long, and the base (which is bisinuate) is not much less than twice as wide as the front margin; this latter also is bisinuate, and bears in the middle a short sharp horn the height of which on its front (or more perpendicular) face is about equal to one-third the length of the clypeus; the frontal impression is shallow, ill-defined, and variable in size, its surface being punctured as the rest of the thorax; the sides are somewhat evenly curved; the front angles are prominent but not acute, the hind angles nearly rounded off. A bunch of long hairs projects over the scutellum and a fringe of similar hairs reaches out backward from the base of the

pygidium. The sculpture of the elytra varies, being almost obsolete in some specimens, but it is never strong; the punctures in the rows are shallow, a little transverse, and not close. The club of the antennæ is nearly twice as long as the entire head, and is nearly parallel sided, and about four times as long as wide. The legs resemble those of *Corynophyllus*.

I have received from Mr. East two specimens taken at Mallala and there are several examples in the South Australian Museum — one of which is ticketed "*Corynophyllus calvus*," but the name does not appear to have been published.

SEMANOPTERUS.

No Australian genus of *Dynastidæ* presents greater difficulty than this, for the descriptions of the three species on which the Rev. F. W. Hope founded the genus are too short and vague to be of much use. I have succeeded, however, in identifying one with some certainty, and I subjoin a detailed description of it, adding descriptions of two more which are certainly new.

S. Subæqualis, Hope. Sat convexus; nitidus; obscure brunneus; capite crasse transversim rugato, cornu conico brevi armato; prothorace canaliculato (canaliculâ crasse punctulatâ), antice transversim rugato, postice subtiliter punctulato; elytris vix costatis sparsim punctulatis. Long. 11—13 l.; lat. 6—6½ l.

The length of the horn varies, but never exceeds that of the basal joint of the antennæ. The prothorax is decidedly more than half again as wide as down the middle it is long; it is nearly twice as wide at the base as across the front margin; its sides and hind angles are rounded, its front angles sharp; its impression occupies its front half (in the male) or third part (in the female), this portion of the segment being strongly declivous; the puncturation of the longitudinal channel is confined to the broad hinder part. The elytra are distinctly at their widest behind the middle; their sutural, external and apical parts are confusedly, finely and sparingly punctured (in some examples this puncturation is almost obliterated); the disc is occupied by about six rows of fine, and not close, punctures (in some examples very obscure), the first, third, and fifth interstices between which are quite smooth and scarcely or not at all convex, the second and fourth interstices being quite level, and confusedly and very sparingly punctured. The scutellum is coarsely punctulate about the base (and in some examples in the middle). In both sexes the antennæ are short with the club shorter than the preceding joints taken together, and the anterior tibiæ are strongly but rather bluntly triden-

tate on their outer margin. The underside and legs are much clothed with rather long ferruginous hairs.

In the male the pygidium is glabrous, shining, and impunctate, except about the sides and base, while the apical ventral segment is widely and roundly emarginate at its apex; in the female the former is closely rugose over its whole surface, and is clothed with reddish pubescence, while the latter is evenly rounded off behind.

The absence of elytral costæ seems in itself sufficient to distinguish this from all the other described species attributed to the genus except *S. convexiusculus*, Macl. in which, however, the elytra are said to be "strongly striato-punctate."

The maxillæ have the intermediate tooth deeply bifid, and the basal one feebly trifid.

I have received two examples (taken in Sedan) from Mr. Rothe; there are also two in the South Australian Museum.

S. angustatus, sp. nov. Sat convexus; nitidus; obscure brunneus; capite, prothorace, pedibus, et abdomine postice (nonnullis exemplis) plus minusve piceis vel nigris, capite transversim rugato, tuberculo conico armato, prothorace canaliculato punctulato; elytris vix costatis sparsim punctulatis. Long. $8\frac{1}{2}$ l.; lat. 4 l.

The protuberance on the head is no more than a smooth conical tubercle; in other respects the head resembles that of the preceding, being rather evenly narrowed from just in front of the eyes to the apex, where it is truncated with a perpendicularly thickened front and somewhat elevated margin. The prothorax is scarcely more than half again as wide as down the middle it is long, and its base is about half again as wide as the front margin; its sides are rounded, its surface rather sparingly and very finely punctured, the puncturation, however, becoming large and coarse in the longitudinal channel, which is wide behind, punctureless, and almost interrupted at the middle, and in the front becomes in the male a large round concavity, in the female a vague wide depression (this is very likely not to be a reliable sexual character); the front part of the prothorax is not conspicuously declivous (as it is in the preceding species); the front angles are sharp, the hinder obtuse, and preceded by a short, gentle sinuosity of the lateral margin. The scutellum is sparingly and coarsely punctured. The sculpture of the elytra consists of a strong, scarcely punctured sutural stria, followed by a smooth space, on which are a few punctures near the base, then a row of fine punctures reaching two-thirds down the elytron, then a smooth scarcely convex space (slightly punctured near the base in one example), then a row of punctures similar to the first row (or a little shorter),

then a space sparsely punctured in front and followed by a third short row of punctures, beyond which are three rows of punctures, the first very short, the external two nearly as long as that nearest the suture; outside these rows a wide marginal space is finely, obscurely, and sparingly punctulate; the extreme apex of the elytra is rather strongly and closely punctured. The pygidium bears some long hairs, and is rather finely and closely wrinkled all over in both sexes.

The underside is much clothed with long reddish hairs. In both sexes the basal five ventral segments have a little close and rugose puncturation on the sides, and also a transverse row of punctures running out from the sides towards (but not reaching) the middle, which is smooth. In the male the apical segment is a little shorter than the penultimate, is very widely and scarcely noticeably emarginate at the apex and is finely wrinkled about its base, the apical portion being smooth and separated from the wrinkled part by a transverse deeply impressed sinuous line which runs from side to side; in the female the apical segment is rounded behind, and is evenly and coarsely wrinkled, hardly punctulate. The legs are like those of *S. subæqualis*.

The maxillæ, like those of the preceding species, have three strong teeth, of which the intermediate is deeply bifid, and the basal feebly trifid.

The convex parallel form of this insect is suggestive at the first glance of a female *Isodon*, but the tubercle on the head of both sexes, the strongly punctured prothoracic channel, the mentum strongly emarginate in front with the insertion of the labial palpi invisible from above, and other characters are clearly those of *Semanopterus*.

Two specimens were taken by Mr. East at Mallala.

S. minor, sp. nov. Brevis; minus parallelus; sat convexus; nitidissimus; piceus; capite transversim rugato, tuberculo conico armato; prothorace canaliculato punctulato; elytris antice fortiter oblique costatis, interstitiis subtriseriatim punctulatis. Long. 8—8½ l., lat. 4—4¼ l.

The colour varies from nearly black to reddish pitchy, the underside and femora especially inclining to a reddish colour. The head does not differ much from that of the preceding; the clypeus is truncate in front, its anterior edge being a little raised, in such fashion that while the truncation is very noticeable if the clypeus be viewed from a point perpendicularly above its surface, from a point behind that (say perpendicularly above the scutellum) the eye catches the raised margin and the clypeus appears rounded in front, while viewed from in front of the head the outline of the whole clypeus appears

to be a continuous tri-sinuate curve, two of the sinuations being formed by the elevated edges of the oblique lateral margins of the clypeus; this clypeal structure is common to all the species known to me of the genus, though in varying proportions, the elevated margin of the clypeus being strongest in *S. levis*. The prothorax closely resembles that of *S. angustatus*, but the distinctness of the puncturation varies to some extent, as also the size of the anterior impression which does not appear to depend on sex. On the disc of each elytron there are two strong smooth, wide, and rounded costæ which commence a little behind the front and run rather obliquely towards the suture, but fail altogether a little behind the middle of the elytron, and outside these is a third costa, similar in form but much feebler; between the sutural stria and the first costa, and between the first and second, and second and third costæ, there is strong puncturation which runs, more or less irregularly, in three rows; outside the feeble external costa the puncturation is fine, confused, and rather sparing, and this system of sculpture is continued widely round the apex, there being a space almost smooth between the apical end of the costæ with their intermediate rows of punctures and the apical confused puncturation, which space is bounded laterally by the suture and the confusedly punctured marginal space. The pygidium, underside, and legs do not seem to differ noticeably from the same parts in *S. angustatus*. In all the species known to me of the genus it is an occasional thing to find on one or more of the second, third, and fourth ventral segments (not always on the middle line) a short longitudinal impression. In this species it is scarcely ever absent, and is nearly always very strong and sharply defined; in the other species it is generally absent, and when present is quite feeble.

S. minor differs, *inter alia*, from all Mr. Hope's species in being very much smaller, from *S. depressiusculus*, Macl., in not having four costæ on each elytron, from *S. convexiusculus*, Macl., in not having the elytra "strongly striato-punctate," and from *S. levis* and *angustatus* in having well defined costæ on the elytra. It is a shorter and less parallel species than *S. angustatus*. Its maxillæ are similar to those of the last-named species.

I have taken this insect near Port Lincoln, and have seen specimens from Kangaroo Island (taken by Mr. Tepper) and from the neighbourhood of Sedan (taken by Mr. Rothe).

BUPRESTIDÆ.

MELOBASIS.

M. Andersoni, sp. nov. Lata; sat nitida; ænea; nonnullis exemplis elytris versus latera plus minusve cupreis; subtus

ænea vel cuprea, antennis tarsisque cyaneis vel nigro-cyaneis; capite plano confertim sat fortiter punctulato longitudinaliter rugato; prothorace quam longiori paullo plus dimidio latiori, postice quam antice paullo plus quartâ parte latiori, fortiter sat crebre (præsertim ad latera) punctulato, a basi ad apicem arcuatim angustato, margine antico leviter emarginato, margine basali vix bisinuato; elytris pone medium leviter dilatatis, sat fortiter striatis, interstitiis convexis sparsissime punctulatis, striis sat crebre subtilius punctulatis versus latera et apicem obsolete, spatio laterali crebre subtilius punctulato transversim rugato, lateribus pone medium serratis; pro et metasternis disco sparsim subtilius, versus latera crebre crasse, punctulatis, illo antice transversim fortiter declivi; abdomine disco antice sparsim, ad latera apicemque crebre, squamose punctulato. Long. $5\frac{3}{8}$ — $7\frac{1}{8}$ l.

I know no species previously described bearing much resemblance to this. The six raised interstices between the striæ on the elytra and the wide space outside them free from distinct striation and transversely wrinkled, together are sufficient to characterise the insect. The external non-striate space is in some specimens a little copper coloured. The apical segment of the hind body is of the structure usual in *Melobasis*.

I owe my type to the liberality of Mr. J. Anderson, who captured it near Port Lincoln. There are two specimens in the South Australian Museum, and I have seen a fourth taken by Mr. Rothe, near Sedan. In the last-mentioned example the curve of the apical portion of the lateral margins of the elytra is somewhat sinuate.

M. semistriata, sp. nov. Sat lata; nitida; ænea vel cupreo-ænea, capite prothoraceque viridibus vel obscure cupreis; subtus cuprea, pedibus anticis antice, antennis, tarsisque plus minusve viridibus; capite plano confertim punctulato; prothorace quam longiori paullo plus dimidio latiori, postice quam antice quintâ parte latiori, fortiter sat crebre (ad latera etiam fortius subconfluentem) punctulato, lateribus sat rotundatis; margine antico sat fortiter postico vix evidentem bisinuato; elytris pone medium leviter dilatatis, apice acuminatis, sparsim subtilius (latera transversim rugata versus, crebrius) punctulatis, in parte media punctato-striatis, suturâ (basi exceptâ) et interstitiis convexis, lateribus pone medium serratis; subtus obscure albido-pilosa, prosterno antice vix transversim declivi, medio sat sparsim crassius nec fortiter, metasterno medio sparsissime subtiliter, abdomine sparsim squamose, punctulatis.

This is an obscure looking insect; its affinity seems to be with *M. Andersoni*, from which it differs in having the thorax less narrowed in front and pretty strongly rounded on the sides, the elytra rather sharply pointed at their apex, and the front of the prosternum scarcely bent over or depressed, but very nearly continuing the plane of the general surface of that segment. It differs from *M. Andersoni* (and from other allies) also in the sculpture of the elytra which is as follows:—the suture is well elevated from a little behind the scutellum; next to this there is a flat sparingly and confusedly punctured space, outside which follows a punctate striate region containing (though they are not very well defined) five striæ, the four intervals between which are convex. The external one of the raised intervals is very obscure, the first and third are the longest; they are all wide and only *slightly* convex in front, becoming narrower and more strongly elevated behind. Between the 5th of the punctate striæ and the lateral margin is a space (about twice the width of that between the suture and the first striæ) on which the puncturation is tolerably close, and is obscurely confluent transversely.

There are two specimens in the South Australian Museum, which, however, are devoid of any record of capture.

M. Rothei, sp. nov. Sat lata; minus nitida, ænea, cupreo-micans; pedibus anticis antice tarsis omnibus et antennis viridibus; capite sat fortiter minus crebre punctulato; prothorace quam longiori plus dimidio (ut 5 ad 3) latiori, postice quam antice fere dimidio latiori, subtilius sat crebre (latera versus crassius) punctulato, a basi ad apicem arcuatim angustato, margine antico bisinuatum emarginato, margine basali vix bisinuato; elytris pone medium leviter dilatatis, subtilius minus crebre (latera versus crebrius, punctis transversim confluentibus) punctulatis, vix evidenter striatis, interstitiis vix evidenter convexis, lateribus pone medium sat fortiter serratis; prosterno minus crebre, metasterno sparsim, subtilius in medio punctulatis, illo antice haud declivi; abdomine squamose minus crebre punctulato. Long. 6 l.

The affinity of this species seems to be with *M. Andersoni*, from which it differs in being narrower and more parallel, and much more finely punctured on the upper surface, with the prosternum a little elevated across its front margin instead of being declivous. The elytra are scarcely striated, with the suture not at all strongly raised behind. Not far from the suture there is an obscurely elevated ridge traceable nearly from the base to the apex in about the position of the second interstice in *M. Andersoni*; within it in front, and outside it

behind, there are obscure traces of raised interstices between the scarcely indicated striæ. The peculiar form of the thorax distinguishes this insect from all other species that bear any resemblance to it.

I possess a single specimen taken near Sedan by Mr. Röthe and generously presented to me.

M. soror sp. nov. Oblongo-ovalis; subnitida; ænea velnigro-ænea, apicem versus nonnullis exemplis obscure cuprea; subtus cupreo-ænea, tibiis anticis tarsisque viridibus; capite plano sat fortiter punctulato, capillis longis albidis confertim obsito; prothorace quam longiori fere duplo latiori, antice quam postice minime angustiori, sat fortiter sat crebre punctulato, ad latera longe albido-pubescenti transversim rugato, antice bisinuato, basi rectilineari, lateribus fortiter rotundatis basi subparallelis; elytris pone medium leviter dilatatis haud striatis, squamose nec crebre punctulatis, punctis antice et latera versus transversim confluentibus, suturâ et lineis duabus (externâ subobsoletâ) pone medium leviter elevatis, lateribus pone medium serratis: subtus longe albido-pubescent, prosterno antice transversim declivi, medio sat crebre fortius, metasterno medio sparsim fortius, abdomine sparsius squamose punctulatis. Long $5\frac{3}{5}$ —7 l.

An obscure looking insect somewhat allied to *M. nervosa*, Boisd. Its characteristic features seem to be—on the upper surface a strongly transverse thorax, which is strongly rounded on the sides (the curve ending just before the base and the sides then being straight), and is not much narrowed in front; and elytra without any distinct striation, but bearing each a fairly defined convex ridge about where the second interstice might be expected if the elytra were striated (which, however, is scarcely raised above the surface in the anterior half, and does not reach the apex), some faint indication of a second ridge very much abbreviated at both ends about where the fourth interstice should be, and the suture pretty strongly raised in its posterior half; and on the under surface an obscure coppery gloss (especially about the hinder part of the abdominal segments) together with a prosternum gently and shortly bent over or depressed along its anterior margin. In some species (*B. nervosa* for instance) the prosternum has its front margin quite in the plane of its surface, or even very slightly raised. The pubescence is very similar to that of *B. nervosa*.

I have received this insect from Mr. Rothe, of Sedan, and there are several specimens in the South Australian Museum devoid of any record of capture,

Melobasis sordida, Blackb.=*M. obscura*, Saund (E.M.M., Dec. 1876). This change of name appears to be necessary, as the name *obscura* was applied by Hon. W. Macleay to another species of the genus in 1872. The insect is evidently a common one in South Australia; I have many specimens before me from Adelaide and Port Lincoln districts; like others of its genus it varies greatly in size (from 4 l. to 6 l.), and in colour from an unicolorous coppery tint (with only the front of the anterior legs greenish and the apex of the tarsi blue) to coppery, with the head, front half of the underside and front of all the legs bright green.

M. cupreo-vittata, Saund. There is a nice series of this species in the South Australian Museum. The size varies from 6 l. to 9 l., the ground colour of the upper surface from fuscous to a bright copper color, and the spots and vittæ on the elytra are more frequently bright green than coppery. The structure of the apical ventral segment is very peculiar. In one sex the excavation (usual in the genus) is extremely wide and deep, and the anterior part of its margin is produced backwards in a kind of tooth, so that the segment appears to be tridentate apically; in the other sex the incision is narrow, deep, and with the anterior part of its margin rounded, and there is a small notch on either side of the lateral margin of the segment just before the apex.

M. Meyricki, sp. nov. Sat angusta, postice acuminata; sat nitida; æneo-viridis, prothorace subaurato; elytrorum sutura postice anguste, margine laterali postice late, et apice, splendide purpureis; pedibus anticis antice, antennisque, læte viridibus; capite ruguloso-punctulato, capillis longis albis crebre instructo; prothorace quam longiore dimidio latiore, antice minus fortiter angustato, basi vix bisinuato, longe pubescenti, fortiter sat crebre punctulato, punctis ad latera crassioribus, margine anteriori bisinuato, marginibus lateralibus antice leviter rotundatis, postice sub-parallelis; elytris disco antice sat fortiter minus crebre sublineatim, ad latera apicemque subtilius crebrius confuse, punctatis, postice minus fortiter denticulatis; suturâ postice elevatâ, regione suturali postice depressâ subtilius punctulatâ; corpore subtus pedibusque longe albidopubescentibus, illo fortiter sat crebre (abdominis segmentis ultimis 4 subtilius) punctulato. Long. $6\frac{2}{5}$ l., lat. $2\frac{1}{10}$ l.

This large and beautiful species is very distinct from any other previously described; its narrow elongate form strongly pointed behind, and the margins of the elytra scarcely denticulate except round the extreme apex, are conspicuous characters. It should be noted that the anterior margin of

the thorax is not much narrower than the base (as $3\frac{3}{4}$ to $4\frac{1}{2}$) and that the puncturation of the elytra has a tendency about the sides and near the apex to become confluent in a transverse manner. The elytra exhibit in different lights various shades of brassy and pure green color.

A single specimen was sent to me from Western Australia by E. Meyrick, Esq.

M. puncticollis, sp. nov. Angusta, sat elongata; sat nitida; viridis; prothorace utrinque cupreo notato; elytris vittâ latâ irregulari cupreo-micante a basi mediâ ad apicem attingente, alterâ marginali, ornatis; vittâ interiori suturam attingente multo ante medium elytrorum, hâc vittâque exterâ ad apicem late conjunctis; subtus longe albido-pilosa; capite crebre fortiter punctulato punctis longitudinaliter confluentibus; prothorace quam longiori paulo plus dimidio latiori, postice quam antice quartâ parte latiori, crebre fortiter (ad latera crasse etiam crebrius) punctulato, antice et postice sat evidenter bisinuato, lateribus antice leviter arcuatis postice fere parallelis; scutello elongato viridi; elytris pone medium haud dilatatis, apicem versus sat fortiter angustatis, suturam versus sparsim subtilius (latera versus crebrius, fortius, transversim confluentem) punctulatis, vix evidenter striatis, suturâ pone medium et interstitio secundo sat fortiter convexis, lateribus pone medium subtilissime serratis; prosterno antice ciliato haud declivi; hoc metasternoque in medio crebre fortiter, abdomine crasse squamose, punctulatis. Long. $4\frac{2}{3}$ l.

Allied to *M. verna*, Hope. The ruddy coppery markings on the thorax and elytra distinguish it at once, but as I have seen only a single specimen I cannot say that these may not be very variable; the green colour of the scutellum and underside also distinguish it from all the examples I have seen of *M. verna*. Structurally it differs from that species as follows:—It is an evidently narrower and more elongate insect, the disc of the thorax is much more finely, closely, and deeply punctured; the scutellum is elongate, the surface of the elytra has even less trace of striation than in *M. verna*, and bears a well-defined costa (not far from the suture) which can be clearly traced almost from the base very nearly to the apex, and also an elongate convexity between it and the suture extending from the base for about a quarter the length of the elytra. On the under side the hind body is much more finely, closely, and obscurely punctured, and (unless the specimen I have described is abraded) much less pilose.

The coppery markings of the upper surface consist of—On

the thorax a large elongate patch reaching forward from the base on either side of the central line; on the elytra a wide irregular vitta commencing at the base a little outside the scutellum, proceeding obliquely till it reaches the suture about a quarter the length of the elytra from the scutellum, and thence continuing down the suture to the apex, where it joins another wide band of the same colour, which runs the whole length of the lateral margin.

There is a single specimen in the South Australian Museum, but no record exists of its capture.

Melobasis suaveola, Germ., is certainly, I think, the same insect as *M. verna*, Hope, and if I am right in this opinion the former name must be dropped, as Hope's is anterior to it by two years. Germar's statement that the thorax is nearly twice as wide as long was probably not founded on measurement, and is a little exaggerated, the actual proportion being as $6\frac{1}{2}$ to 4. It is a common insect in the Adelaide district, and I have taken it near Port Lincoln. It varies in size from $3\frac{1}{2}$ l. to 6 l., and in colour from green to coppery, with all intermediate shades and mixtures; but the extreme lateral and sutural margins and the scutellum are always coppery, and the under side rarely varies from bright coppery with long sparse white pubescence. The puncturation of the thorax is sometimes more or less obsolete on the disc.

M. propinqua, Hope. This is said by Mr. E. Saunders (Trans. Ent. Soc., 1868) to be identical with *M. Porteri*, Hope. As Mr. Saunders had made a personal examination of the types I have little doubt of the correctness of this determination. At the same time I incline to the opinion that there are several distinct species very closely allied to *M. propinqua*, although I am not at present able to characterise any of them confidently. One obstacle to doing so is the want of a really satisfactory description of Hope's insect, even Mr. Saunders having omitted to mention such important characters as the nature of the striation of the elytra. In the South Australian Museum there is a specimen (its identification I have not attained with absolute certainty, but from its position in the cabinet I am tolerably sure of it) which some M.S. notes assert to have been named *M. propinqua* by Mr. G. R. Waterhouse; and however that may be, I think it probably is that species. There are also in the Museum specimens which I cannot satisfactorily separate from it, and I have in my own collection others, perhaps identical specifically, taken near Port Lincoln. Examining the series thus constituted I find wide variety in size and some slight difference in the shape and sculpture of the thorax which suggest the idea mentioned above of several very closely allied insects, but they all agree in possessing the

following characters, viz.:—On the upper side a prothorax not very strongly transverse (*i.e.*, quite evidently less than twice as wide as long), with puncturation more or less strong and scanty (as compared with that usual in the genus), and sides diverging from the front with an extremely slight curve to quite behind the middle, and then continued nearly parallel to the base; elytra coarsely and strongly punctured and transversely wrinkled near the sides, having the disc rather distinctly striated, the second and fourth (in a less degree) interstices, together with the suture, rather conspicuously convex, the convexity of all of them failing, however, in the anterior quarter (or third) of the elytra, and that of the second and fourth interstices failing also near the apex; surface very shining, colour various combinations of coppery and green, the former colour generally predominating about the hinder part of the lateral margins and apex of the elytra; on the under side the prosternum and metasternum finely and sparingly punctured on the median line, hind body sparingly but more coarsely punctured.

M. rotundicollis, sp. nov. Oblongo-ovalis; capite cupreo vel viridi; prothorace et elytris cyaneo, violaceo cupreo viridique obscure micantibus, his plerisque exemplis læte trans basin anguste rubro-violaceis, nonnullis, rubro-marginatis; subtus cuprea vel viridis, vel antice viridis postice cuprea, antennis pedibusque concoloribus; capite plano confertim fortius punctulato; prothorace quam longiori fere duplo latiori, postice quam antice tertiâ parte latiori, punctulato (in disco sparsim subtilius, ad latera crebre fortiter, hic punctis transversim confluentibus), lateribus fortiter rotundatis, margine anteriori sat evidenter, basi vix, bisinuatatis; elytris pone medium leviter dilatatis, obsolete striatis; striis seriatim, interstitiis prope suturam sparsissime versus latera confertim transversim punctulatis; suturâ, et interstitio 2°, postice subcostatis; regione suturali postice concavo; margine laterali postice serrato; subtus prosterno crebre subtilius, metasterno sparsim sat fortiter, abdomine sparsim squamose, punctulatis. Long. $3\frac{3}{5}$ — $4\frac{1}{5}$ l.

Although this species is not uncommon, and is widely distributed in South Australia, it does not appear to have been named hitherto. It varies in respect of colour, on the upper surface from entirely coppery to almost entirely blue with all intermediate mixtures of those two colours. In all the specimens I have seen, however, when two colours are present on the underside they are green in front and copper colour on the hinder part, and in nearly all that I have seen there is a quite conspicuous narrow transverse border of a rather bright car-

mine colour across the anterior margin of the elytra, often interrupted by a blue scutellum. The carmine (rather than coppery) tint of the iridescence, which the whole upper surface displays in certain lights, the strongly rounded lateral margins of the thorax, perfectly straight anterior margins of the elytra, and the strong elevation behind of the second elytral interstice (no other interstice being distinctly elevated, the fourth is feebly so in some specimens) are all characteristic features. It should also be noted that the punctures on the disc of the thorax are not round but somewhat elongated transversely, although some specimens have the disc of the thorax more roughly punctured, and in these the individual punctures hardly display this character distinctly, but there is a tendency to transverse wrinkling; probably this difference in the thoracic puncturation is sexual.

I have seen many specimens from Port Lincoln and the Adelaide district.

M. vittata, sp. nov. Oblongo-ovalis; sat nitida; capite cupreo vel viridi; prothorace viridi cupreo-notato; scutello viridi; elytris cupreis viridi-bivittatis (vittâ alterâ communi suturali basali, alterâ discoidali a callo humerali productâ in parte apicali quartâ elytrorum deficiente); subtus viridis vel cuprea vel cuprea viridi-micans, pedibus concoloribus; capite plano crebre fortius punctulato, punctis rugis confuse conjunctis; prothorace quam longiori plus dimidio (ut $3\frac{1}{2}$ ad 2) latiori, postice quam antice fere tertiâ parte latiori subtilius crebre punctulato (latera versus transversim rugatis etiam crebrius punctulato), lateribus leviter arcuatis, margine antico evidenter, basali vix, bisinuato; elytris pone medium leviter dilatatis, vix evidenter striatis, subtilius crebre punctulatis (latera versus transversim rugatis, etiam crebrius punctulatis), suturâ pone medium et interstitio 2° (parte basali exceptâ) elevatis, lateribus pone medium serratis; subtus in medio sparsim subtiliter, ad latera crebrius crassius, punctulata. Long. $4\frac{2}{5}$ — $4\frac{3}{5}$ l.

The markings of this species render it incapable of confusion with any other. I think its affinity is with *M. rotundicollis* mihi, and *M. intricata*, mihi, especially the latter, from which, however, it differs (independently of the totally different markings) in the slighter curve of the sides of the prothorax, the much feebler and more sparing puncturation of the underside (especially the prosternum) on the median line, &c. The cupreous clouding of the thorax seems to vary. In one specimen that I have before me it consists of a faint longitudinal spot on either side, in another it suffuses the whole surface except on a portion of the median line. The prothoracic

punctuation resembles that of *M. rotundicollis*, the punctures in some specimens being like rather fine transverse scratches and in others considerably coarser and not distinctly transverse.

I have taken an example of this species near Port Lincoln, and there are two specimens in the South Australian Museum, of which the particulars of capture are not known.

M. intricata, sp. nov. Oblongo-ovalis; viridis aureo-micans, prothorace elytrisque purpureo-notatis, antennis tarsisque obscuris; capite leviter convexo, confertim sat fortiter punctulato, prothorace quam longiori fere duplo latiori, postice quam antice paullo plus quartâ parte latiori, sat fortiter nec crebre (ad latera confertim) punctulato, disco utrinque purpureo-maculato, lateribus leviter arcuatis, margine anteriori fortius basi vix evidentè bisinuatis; elytris disco sparsim ad latera crebre punctulatis, obscure striatis, perplexè [utrinque antice vittis 2 ante medium conjunctis, suturâ (parte anteriori quartâ exceptâ), fasciâ post medium et margine laterali postice] purpureo-notatis, sutura et inter-stitio 2° pone medium elevatis, marginibus lateralibus postice sat fortiter serratis; subtus antice sat fortiter postice squamose punctulata. Long. 4—4½ l.; lat. 1⅔—2 l.

Var. a. Cyanea, purpureo-notata.

Var. b. Cyanea, maculis purpureis fere obsoletis.

Var. c. Cyanea vel viridis maculis plus minusve aureis.

With a long series of specimens before me of this insect I find much variety in respect of colour and size, but little in any other respect except that in some examples the thorax appears to be somewhat more strongly rounded laterally than in others. A description in English will be desirable of the markings, as it is difficult to describe them accurately in Latin, and I do not find the slightest essential variableness in their shape, although there is much in their color and intensity. They are as follows:—On either side of the central line of the thorax a wide longitudinal vitta touching the base, but not quite touching the anterior margin and extending laterally nearly half way to the margin (in specimens where the thorax is bluish this is often very obscure, the ground colour being nearly the same as that of the vitta); on the elytra an oblique vitta commencing on the shoulder just within the base and running in the direction of the apex of the suture for about one-third the length of the elytron where it becomes wider and turns transversely towards the suture which it touches; between it and the suture there is another wider straight vitta which starts from the base and joins the other vitta in its transverse portion; the

extreme edge of the elytra is concolorous with these vittæ, so that the basal part of the two elytra is traversed longitudinally by six purple or golden stripes alternated with five stripes of the ground colour, all the purple stripes merging into a wide concolorous fascia the hinder edge of which is at about the middle of the elytra, but which does not nearly touch the lateral margins; from this fascia its colour is broadly continued along the suture to the apex, where it meets an equally broad vitta which commences about the middle of the elytron on the lateral margin and follows the margin to the apex; just behind its commencement the lateral vitta is connected with the sutural one by a wide transverse fascia, so that in the hinder half of each elytron the ground colour exists only as a rather small spot surrounded by the posterior fascia (in front) and the sutural and lateral vittæ (on the sides and behind). The extreme anterior margin also is purple or golden. In some specimens the ground colour is so nearly the same as that of the markings that the latter are difficult to trace except side by side with a well marked specimen. This insect is rather close to *M. superba*, L. and C., but is much smaller (the largest specimen I have seen being less than 5 l. against 7 l., the length of *M. superba*). There are colour differences also (*e. g.* the scutellum being always of the ground colour), and the markings are different, especially in respect of the anterior fascia of the elytra not nearly reaching the lateral margins. The thorax is less narrowed in front, and has no *raised* dorsal line, but in some examples faint traces of an impressed one, and the elytra are swollen out, and at their widest just behind the middle. The pattern of the front half of the elytra scarcely differs from the same in *M. pyritosa*, Hope. but the hinder half is very differently marked, the outline of the elytra is rounded, and blunt behind, &c., &c.

There are a number of specimens of this insect in the South Australian Museum, but there is no record of their locality. It has been taken near Port Lincoln by my friend, Mr. J. Anderson.

M. pretiosa, sp. nov. Lata; viridis, prothorace elytrisque purpureo-notatis, notis aureo vel cupreo marginatis; capite crebre sat fortiter punctulato; prothorace quam longiori fere duplo (ut $4\frac{1}{2}$ ad $2\frac{1}{2}$) latiori, antice quam postice paullo (ut $3\frac{3}{4}$ ad $4\frac{1}{2}$) angustiori, sat fortiter punctulato (disco sparsim, ad latera crebre, his transversim rugatis), disco obscure cupreo-umbrato, lateribus leviter arcuatis, margine anteriori leviter basi vix evidenter bisinuatis, angulis posticis acutis; elytris leviter striatis sat crebre punctulatis, punctis in parte transversim confluentibus; sutura (basi exceptâ), margine laterali (antice peranguste postice

sat late), fasciâ latâ ante medium, fasciâ angustiori post medium, et apicem, purpureis aureo vel cupreo marginatis, lateribus postice sat fortiter serratis; subtus antice fortiter postice sat subtiliter punctulata, abdominis segmento ultimo apice obscuro. Long. $5\frac{2}{5}$ —61.

Var. Colore plus minusve aurato.

This insect appears to be distinct from any previously described. It is considerably smaller than *M. superba*, with the markings different, and the thorax much less contracted in front, &c., &c. The anterior elytral fascia is of rather peculiar form, being of a somewhat circular shape on each elytron, and its curve scarcely quite touches either the suture or the lateral margin; its front edge is quite clear of the base of the elytra.

The South Australian Museum contains two specimens of this insect; one of them has no record of capture, the other was taken by Mr. Tepper, at Dimboola, Victoria.

N.B.—There is a specimen in the South Australian Museum with markings, colours, and puncturation so absolutely identical with the above that I hesitate to treat it as a distinct species, although it is considerably smaller and narrower, and has the thorax much more strongly contracted in front. It is labelled as taken at Gawler.

M. speciosa, sp. nov. Sat angusta; capite prothoraceque aureo-viridibus, elytris auratis vel viridibus purpureo vel cyaneo notatis; subtus cyanea, abdominis segmento ultimo cupreo, antennis tarsisque obscuris; capite leviter convexo, crebre fortius punctulato, punctis rugis obscure conjunctis; prothorace quam longiori plus dimidio (ut $2\frac{1}{2}$ ad $1\frac{1}{2}$) latiori, antice quam postice paullo (ut 2 ad $2\frac{1}{2}$) angustiori, disco sparsim subtilius ad latera fortius crebre punctulato, his transversim rugatis, nonnullis exemplis lineâ dorsali lævi, lateribus sat fortiter rotundatis, margine anteriori et basali leviter bisinuatis, angulis posticis acutis; elytris obsolete striatis, punctulatis (prope mediam suturam sparsim, ceteris partibus sat crebre), ad latera transversim rugatis; margine laterali postice, suturâ (basi exceptâ), maculâ ante mediam partem (suturae conjunctâ), fasciâ pone medium et apice purpureis vel cyaneis; lateribus postice sat fortiter serratis; subtus antice subtilius, postice squamose, sparsim punctulata. Long. $2\frac{3}{5}$ — $3\frac{2}{5}$ l., lat. 1 (vix)— $1\frac{1}{5}$ l.

Var. *a*. Capite prothoraceque cyaneis.

Var. *b*. Segmento ultimo obscuro vix cupreo.

This seems to be a very distinct species. Its small size and brightly-coloured markings together are almost enough to characterise it. The front of the purple colouring on the suture of the elytra expands into a large spot on either side (somewhat

as in *M. gloriosa*, Hope); the marginal purple colour commences just behind the middle where the fascia meets the margin; the spot of ground colour near the apex enclosed by the purple of the suture, fascia, lateral margin, and apex is moderately large. I have seen a good many specimens of this insect, all those bearing any record of locality having been taken at no great distance from Adelaide. The species does not seem to vary much.

M. semisuturalis, sp. nov. Oblongo-ovalis; sat nitida; læte viridis, elytrorum sutura (tertia parte anticâ exceptâ) et magine laterali summo purpureis; capite plano confertim sat fortiter punctulato; prothorace quam longiori plus dimidio (ut $2\frac{2}{3}$ ad $1\frac{2}{3}$) latiori, postice quam antice paullo plus quartâ parte latiori, crebre subtilius (ad latera crassius) punctulato, antice sat evidenter postice leviter bisinuato, lateribus leviter arcuatis; elytris pone medium leviter dilatatis, obscure striatis (striis suturam lateraque versus deficientibus), crassius confuse punctulatis, punctis præsertim ad latera transversim confluentibus, lateribus pone medium transversim rugatis; prosterno antice declivi; hoc in medio crebre, sat fortiter, metasterno in medio sparsius sat fortiter, abdomine sparsius squamose, punctulatis. Long. $3\frac{2}{5}$ l.

This is a splendid little insect. The green colour of the specimen described is about as full and rich a tint as can be imagined. It should be noted that the interstices of the striæ on the elytra are obscurely convex, the first, third, and fifth very slightly and undecidedly more so than the others.

M. (?) thoracica, sp. nov. Oblongo-ovalis; minus nitida; atrocyanæa; capite prothoracis lateribus, elytrorum margine summo apiceque, et corpore subtus, obscure cupreo micantibus; capite plano confertim fortiter punctulato; prothorace quam longiori dimidio latiori, postice quam antice quartâ parte latiori, crebre fortiter (ad latera etiam crebrius) punctulato, lateribus sat fortiter rotundatis, margine anteriori leviter posteriori fortiter bisinuatis; elytris pone medium leviter dilatatis sat evidenter striatis, sat fortiter punctulatis, punctis suturam versus sparsis, latera versus crebris transversim confluentibus, striis punctulatis ad latera deficientibus, interstitiis planis, lateribus totis (quartâ parte basali exceptâ) subtiliter serratis, margine anteriori fortius obtuse producto; prosterno antice vix declivi; hoc in medio (antice subtilius postice fortiter) crebre punctulato; metasterno in medio sparsius sat fortiter punctulato, spatio utrinque pone medium lævi; abdomine crebre fortiter punctulato. Long. $4\frac{3}{5}$ l.

The strong bisinuation of the base of the prothorax and the evidently produced anterior margins of the elytra in this insect are scarcely consistent with a place in the genus *Melobasis*. There is, however, an approach to similar characters in *M. speciosa*, which certainly belongs to the genus, and the general aspect of *M. thoracia*, structure of the apical segment, &c., are quite of the ordinary type. The lateral serration of the elytra carried nearly to the base and the shining unpunctured space on either side of the metasternum are also very distinctive characters. There is a very distinct impression at the base of each of the intermediate ventral segments on either side.

I have a single specimen in my collection taken by myself in South Australia, but unfortunately I have no exact record of the circumstances of its capture.

EURYBIA.

E. australis, sp. nov. Elongata; cylindrica; ænea, vix cupreo-tincta; fortiter punctulata; prothorace quam longiori haud latiori; elytris haud conspicue 4-costatis; antennarum articulo quinto sexto simili. Long. 4 l., lat. 1 l.

The head scarcely differs from that of *E. chalcodes*, Hope; the antennæ are a little longer than in that species, the series of dentate joints beginning with the fifth (not as in *E. chalcodes*, with the sixth). The prothorax is, by measurement, equal in length and width, and is scarcely contracted towards the front; in other respects it hardly differs from that of the older species. The elytra, however, are differently sculptured. Outside the two costæ (which are really the alternate interstices of an ill-defined system of punctured striæ) next to the suture, the striæ (at least on the posterior half of the elytra) become defined, and all their interstices are convex, the alternate ones (representing the third and fourth costæ of *E. chalcodes*) being very little more so than the rest; the whole puncturation tends to run in longitudinal lines, and the apex, which is feebly emarginate, has an obscure spine only at the sutural edge of the emargination. The general form is narrower and more cylindrical than that of *E. chalcodes*, with the elytra less pointed apically.

Several specimens were taken by Mr. J. Anderson and myself about six miles from Port Lincoln.

ANILARA.

This genus was formed by M. Deyrolle for the reception of *Anthaxia Adelaideæ*, Hope. The truncate hind margin of its prothorax, non-spinose apical ventral segment, and basal joint of hind tarsi quite strongly compressed (on its wide face wider

than any other part of the tarsus) are characters which, taken together, will distinguish it from all its Australian allies.

A. Adelaidæ, Hope. I have examples, taken near Adelaide, of an insect which agrees very well with the description of this species. It is the only *Anilara* known to me with an impressed longitudinal line on the vertex. The type must have been a very small specimen ($1\frac{1}{4}$ l.). Those I have seen vary from $1\frac{1}{3}$ l. to 2 l. in length.

A. planifrons. Minus lata; ænea; sat rugose nec profunde punctulata; prothorace fortiter transverso, elytris latiori. Long. $1\frac{1}{6}$ l., lat. $\frac{3}{8}$ l.

This minute *Buprestid* is of a blackish-brassy colour, with the head and prothorax a little coppery. The head is evenly convex, and is covered not very closely with moderately large, round shallow punctures, which seem to be of a dull whitish colour within, as though they contained a small scale or granule, a similar system of puncturation (rather coarser however) extending to the sides of the prothorax, but becoming obsolete towards the disc where the sculpture consists of scratchy wrinkles, the actual centre space being nearly lævigata in most specimens. The prothorax has strongly-rounded sides, and is widest a little behind the middle, where it is wider than the elytra; across the base it is just twice as wide as down the middle it is long, and something less than twice as wide as its front margin; the base is truncate, or rather slightly concave all across, causing the posterior angles to seem a little produced backwards; these latter are acutely rectangular, the anterior angles acute, but not conspicuous, the anterior edge shallowly emarginate. The scutellum is roundly triangular and not very small; the front margin of the elytra does not project forward at all beyond it. The sculpture of these latter is very obscure; near the suture it is sparing puncturation, which is very fine in front and becomes coarser hindward; the lateral portions seem to be very coarsely coriaceous, and without defined punctures. On the underside the sterna are set laterally with large punctures similar in character to those on the head, and are smooth in the middle, while the sculpture of the hind body consists of long fine lines running longitudinally.

The evenly convex head and curiously sculptured hind body will readily distinguish this species from *A. Adelaidæ*, Hope. I cannot discover any distinct thoracic margin in this species; in *A. Adelaidæ* there is a very fine thread-like one which, however, runs entirely on the under surface, but keeps parallel to the edge.

I obtained a few specimens of this insect by beating *Eucalyptus* near Wallaroo.

NEOCURIS.

I have not seen the original diagnosis of this genus by M. Deyrolle, but the characters are mentioned (probably quoted) by M. Fairmaire in the Ann. de la Soc. Ent. de France for 1877. These characters are eminently unsatisfactory. One of them is that the head is more widely and deeply excavated than in *Curis*, and yet M. Fairmaire makes a section in the genus with the head not excavated at all. Another character, the less prominence of the labrum, is extremely variable. There remain (to distinguish it from *Curis*) smaller size, a difference in the shape of the front of the prothorax, and a proportional shortness of the basal joint of the tarsi. Of these the last only appears to me a good distinction. The following characters, however, will distinguish the genus from all other Australian genera of the sub-family, and so enable the Australian collector to recognise it, viz., poriferous depressions of the antennæ terminal (as in *Curis*, *Melobasis*, &c.); hind tarsi much shorter than their tibiæ, the basal joint not (or scarcely) so long as the following two together; head more or less impressed between the eyes; prothorax bisinuate behind; apical part of elytra serrulate, simply and separately rounded behind (in all species yet described); pygidium concave, exposed; apical ventral segment evenly rounded off (*i.e.*, not produced into spines at the apex).

The following two descriptions are founded on species that clearly appear to be hitherto undescribed members of this genus. I have before me several others allied to, but probably distinct from, some of those described by M. Fairmaire (*loc. cit.*), but as M. Fairmaire's descriptions are not precise in respect of the proportional length and breadth of the insects or of their several segments it is impossible to be certain as to their distinctness.

N. Fairmairei, sp. nov. Lata; cœruleo-nigra, subtus lætius cœrulea; fortius nec crebre punctulata; capite sat fortiter impresso; elytris mox post basin fortiter impressis. Long. 2 l. Lat. 1 l.

A very short, wide, flattish species, even more so than *C. discoflava*, Fairm., the anterior two-thirds of the elytra almost parallel, or rather with sides very slightly concave, the body in front of and behind that part somewhat equally narrowed. The head is a little more transverse than in *N. discoflava*, with the clypeus scarcely so distinctly emarginate in front; it is moderately channelled longitudinally, the channel being deepest in the middle so as to appear a little foveiform; the puncturation is a little less close than in *discoflava*, and a little inclined to run into rows. The pro-

thorax at the base is strongly bisinuate, is nearly twice as wide as it is long down the middle and a little more than half again as wide as its front margin; its sides are arcuately narrowed from the base to the apex; its surface is rather strongly convex both longitudinally and transversely, and (as in *N. discoflava*) is coarsely and rather closely, but not deeply, punctured. The elytra are very little convex and are rather finely and rather sparingly punctured, the punctures running in the anterior half entirely in transverse wrinkles and becoming very faint towards the apex; the transverse depression immediately behind the base is wide, strong, and conspicuous, and there are indications of impressions, or unevenness, about the middle. The puncturation of the underside is coarse but shallow, close on the sides, and sparse in the middle.

The unicolorous bluish-black tint of this species would place it in M. Fairmaire's first division of the genus, but its real affinity is certainly with *N. discoflava*, *Fortnumi*, &c.

There is a single specimen in the South Australian Museum taken almost certainly in South Australia.

N. pubescens, sp. nov. Convexiuscula; minus parallela; nigra, obscure cœruleo-tincta; capillis sat longis albidis vestita; fortiter punctulata; elytris vix inæqualibus. Long. 2 l. Lat. $\frac{4}{5}$ l.

The uniform blackish colour is only slightly tinged with blue; the shape resembles that of *N. monochroma*, Fairm., the prothorax, however, being more convex longitudinally. The head is feebly channelled and is covered rather closely with very large and very deep punctures. The prothorax is sculptured a little less coarsely than the head; it is at the base slightly more than half again as wide as down the middle it is long, and only about a quarter as wide again as its front margin; it is slightly and arcuately contracted from the base to the apex. The elytra are gently contracted from the base hindward; their puncturation is close and strong, but not nearly so strong as that of the prothorax; in front and laterally the puncturation has only a moderate tendency to run in transverse wrinkles. The erect, rather long, and moderately close hairs which clothe the whole upper and under surface distinguish the species from all others yet described in the genus.

The sculpture of the underside is coarse.

A single specimen occurred to me on a flowering *Eucalyptus* about 20 miles north of Port Lincoln.

ETHOS.

E. maculatus, sp. nov. Latus, antice posticeque angustatus; supra nigro-æneus, albido-maculatus, minus nitidus; subtus æneo-micans, ad latera albido-pubescentis; antennis

sat robustis capiti longitudine vix æqualibus; capite longitudinaliter profunde sulcato, crasse rugose nec crebre punctulato; prothorace quam longiore fere duplo latiore, utrinque carinâ flexuosâ a latere remotâ instructo, antice quam postice paullo minus dimidio angustiore, ad basin fortiter lobato, crasse confuse nec crebre rugato, crasse obscure punctulato, lateribus antice paullo rotundatis postice subparallelis, angulis posticis obtusis, margine anteriori concavo in medio leviter rotundato-producto, disco postice late (nonnullis exemplis vix evidentis) canaliculato; elytris obscure striatis, striis carinis minutis confertim instructis; subtus (prosterno crasse fortiter rugato excepto) punctulatus, puncturis antice sat crassis nec crebris postice gradatim subtilioribus crebrioribus notatus. Long. $3\frac{3}{5}$ — $4\frac{2}{5}$ l.

This is a very distinct species; the elytra marked with a considerable number of isolated (but not very sharply defined) small patches of whitish pubescence give it a peculiar appearance.

Western Australia; sent to me by E. Meyrick, Esq. Also near Port Lincoln.

NEOSPADES, *gen nov.*

I propose this new generic name for an insect in the South Australian Museum, which is said to be *Coræbus chrysopygius*, Germ., and which, in spite of some slight discrepancies in respect of colour, I have little doubt is that species. It, however, is certainly not a *Coræbus*, the carina within the lateral margin of the thorax on either side being continuous to the anterior margin, and straight (as in *Cisseis*). The tarsi, with strongly compressed joints (those of the posterior legs having the basal joint scarcely longer than the second), distinguish the insect from *Cisseis* and *Ethon*, while the strongly transverse scutellum, sharply pointed behind, and absence of tubercles from the head and thorax, prevent its being placed in *Discoderes*. In respect of the rest of its characters I do not observe any notable difference from *Cisseis*, except that the claws are strongly bifid, and that only joints five to eleven of the antennæ are distinctly dentate. As it is probable that Germar's description of his *Coræbus* is not familiar to South Australian entomologists, the following description of the specimen on which I found this genus may not be out of place.

Minus convexus; sat angustus; nitidus; viridis; elytrorum dimidiâ parte apicali aureo-purpureâ, fasciâ angustâ aureo-viridi notatâ; antennarum articulis 5° - 11° serratis; capite sat fortiter canaliculato, crebre fortius punctulato, postice longitudinaliter rugato; prothorace quam longiore fere

duplo latiore, antice minus fortiter angustato fortiter bisinuato, fortiter transversim rugato, postice bisinuato, lateribus rotundatis; elytris antice fortiter crebre postice sparsius subtilius punctulatis, rugatis, lateribus postice crenulatis; subtus obscure punctatus, reticulatim strigosus. Long. $3\frac{1}{2}$ l.

There are faint indications of pubescent spots on the sides of the abdominal segments, which would possibly be well defined in a fresh specimen.

CISSEIS.

C. nubeculosa, Germ. I have long had a suspicion that this and *M. chalcopterum*, Germ., could not be satisfactorily separated, the latter being distinguished by their author only by size, colour, and the absence of certain impressions from the head and thorax. In the last-named respect *M. nubeculosa* itself varies not a little. The question has, however, been set at rest by Mr. J. G. O. Tepper, who has shown me two specimens taken pairing, one of which is evidently *C. nubeculosa* and the other *C. chalcopterum*. He assures me that he has frequently found the two forms pairing together.

C. obscura, sp. nov. Minus convexa; aenea; supra quam subtus multo minus nitida; abdomine glabro; elytris obscure aureo pubescentibus postice subcupreis, capite sat crebre fortius punctulato, postice undatim rugato, medio vix evidenter canaliculato; prothorace vix dimidio latiore quam longiore, antice minus fortiter angustato subtruncato, postice leviter bisinuato, æquali, crebre subtiliter curvatim rugato, lateribus sat rotundatis; elytris crebre subtiliter rugose punctulatis, lateribus postice subtiliter serratis. Long. 3 l.

This little species resembles *C. notulata*, Germ., and *C. roseocuprea*, Hope. It is a flatter and proportionately wider insect than either of them, and also differs from them both in the perfectly even surface of its thorax, which is entirely devoid of impressions, in the absence of pubescent spots from the abdominal segments, and in the arrangement of the pubescence on the elytra, which is evenly though obscurely spread (giving those organs an appearance of being frosted) saving that there are some denuded spaces forming a vague irregular fascia near the front, a second behind the middle, and a third occupying the apex; there is no trace at all of the spots of pubescence which are present in all the specimens I have examined of the other two species mentioned above. *C. obscura* is also distinguished from them both by the considerably finer and closer puncturation of its elytra, from *C. notulata* by the

very slight concavity of its head, and from *roseocuprea* by the brighter appearance (and the transverse wrinkles on the hinder part) of the same. According to Dr. Germar *C. notulata* has elytral margins devoid of serration, but I do not think that this is a reliable character, as specimens otherwise identical differ from each other in respect of it, and I even possess a specimen in which there is serration on one elytron only. The sculpture of the abdominal segments is also characteristic in *C. obscura*, consisting of fine longitudinal scratches and transverse wrinkles, on a very brilliant surface. It resembles *C. acuducta*, Kirby, in many respects (especially in the arrangement of the pubescence on the elytra), but differs in the absence of impressions from the thorax, smaller size, the very much more finely sculptured under-surface, &c., &c.

Of this species I have seen only a single specimen, which occurred to me near Port Lincoln.

C. parva, sp. nov. Sat convexa; ænea, ad cupreum colore tendens; sat nitida; supra obscure pubescens, subtus glabra; capite sat crebre fortius punctulato, postice curvatim rugato, medio sat fortiter late canaliculato; prothorace quam longiore fere duplo latiore, antice minus fortiter angustato postice leviter bisinuato utrinque bifoveolato, curvatim rugato (in medio leviter, ad latera fortius), lateribus minus rotundatis, margine anteriori sat fortiter rotundatim in medio producto; elytris crebre obscure sat crasse nec fortiter punctulatis, lateribus postice vix evidenter serratis. Long. 2 l.

Var. Colore æneo-viridi, elytris æneo-purpureis.

This very small *Cisseis* is another ally of *C. notulata*, Germ., and *roseocuprea*, from which it may be at once distinguished by the absenae of pubescent spots on the sides of the hind body. From *C. obscura*, mihi, it differs in respect of its much more strongly transverse thorax, which has two wide ill-defined impressions on either side at the base (the outer of which is the feebler of the two), the much coarser (though hardly deeper) puncturation of the elytra and hind body, and the much feebler serration of the hind lateral margin of the elytra. The whitish pubescence on the elytra of the specimen before me is very sparse and obscure (possibly owing to abrasion). It seems, however, to shape itself rather after the fashion of the elytral pubescence in *C. obscura*.

There is a single specimen in the South Australian Museum—locality unknown; also a single specimen of the var. (in a similar plight), which apart from colour differs from the type only in having the external basal impression on the thorax still more feeble, and vaguely connected with the internal one. I

have in my own collection a specimen taken about 30 miles from Port Lincoln.

The following two new species differ rather conspicuously in appearance from the ordinary types of the genus, although I do not observe any defined character that renders a new name necessary. They are broad about the front of the elytra and a good deal narrowed thence both towards the head and towards the apex; they are absolutely devoid of any indication of pubescent spots or fasciæ, and the lateral carina (*i.e.*, that within the lateral margin of the thorax on either side) is widely separated from the margin and strongly curved near the base of the thorax. The tarsi are somewhat more compressed than is usual in the genus, and the basal joint of the hind tarsi, though longer than the second, is distinctly shorter than the second and third together.

C. constricta, sp. nov. Nitida; antice posticeque angustata; breviter æqualiter sparsim pubescens; cyaneo-viridis, elytris purpureo-nigris igneo-cupreo marginatis; capite subplano vix evidentè canaliculato crebre sat fortiter punctulato, punctis rugis longitudinalibus positis; prothorace quam longiore fere duplo latiore, antice leviter rotundato minus angustato, trans basin depresso, obscure squamose punctulato, transversim curvatim nec crebre rugato, lateribus leviter arcuatis parte quintâ posteriori abrupte subrectis, carinâ laterali postice fortiter arcuatâ marginem anteriorem vix attingente, basi leviter bisinuatâ; elytris antice crasse obscure punctulatis transversim crasse rugatis, postice punctis subtilioribus rugis obsoletis; subtus sparsim squamose punctulata, punctis undatim rugis conjunctis; prosterno fortius punctulato. Long. $2\frac{1}{3}$ l.

Owing to the abrupt declivity of the sides of the thorax the curved carina viewed from above seems to form the lateral margin, and this in conjunction with the transversely depressed base of the thorax causes the thorax to appear strongly constricted just in front of the base, the apparent constriction seeming to form on the lateral margins a sharply-defined triangular excision. The fourth joint of the antennæ is equal in length to the third and longer than the fifth; it is slightly produced on the inner side, but much less so than the following joints.

I have a single specimen, which was sent to me from Western Australia by E. Meyrick, Esq.

C. Lindi, sp. nov. Sat nitida; antice posticeque angustata; vix pubescens; cupreo-ænea, antennis (basi exceptâ) tarsis elytrisque purpureo-nigris, his igneo-cupreo marginatis;

capite subplano vix evidenter canaliculato crebre sat fortiter punctulato, punctis rugis longitudinalibus positis; prothorace quam longiore fere duplo latiore, antice leviter rotundato sat fortiter angustato, utrinque in angulo postico foveolato, obscure squamose punctulato, transversim curvatim nec crebre rugato, lateribus leviter arcuatis parte quintâ posteriori abrupte subrectis, carinâ laterali postice fortiter arcuatâ marginem anteriorem vix attingente, basi leviter bisinuatâ; elytris antice crasse obscure punctulatis, transversim crasse rugatis, postice punctis subtilioribus rugis obsoletis; subtus sparsim squamose punctulata, punctis undatim rugis conjunctis; prosterno fortius punctulato. Long. $2\frac{3}{5}$ —3 l.

The resemblance of this species to the preceding is very great. Apart from colour and size the difference seems to be confined to the thorax. In *C. Lindi* the anterior margin is two-thirds the width of the posterior, the surface is even (except that there is a fovea close within the posterior angle on either side), and the lateral margins viewed from above appear to be narrowed from the base to the apex in a bisinuate curve. In *C. constricta* the anterior margin is three-quarters the width of the posterior, there is a conspicuous depression all across the base, and the lateral margins viewed from above have the peculiar outline already described. In both these species the true lateral margin (which cannot be seen from above) is gently arched from the front to near the base, then strongly rounded inwards, and then proceeds in a nearly straight line to the base. This sculpture is best seen from a point of view half-way between perpendicular and lateral. The fourth joint of the antennæ is longer than either the third or the fifth, and is scarcely less produced than the fifth on the inner side.

This is a South Australian species; I have taken it near Port Lincoln, and have also seen specimens taken near Adelaide.

C. occidentalis sp. nov. Sat nitida; oblongo-ovalis; glabra; viridis, cupreo-micans, antennis pedibusque obscuris; capite lato vix concavo anguste canaliculato fortius sat crebre punctulato, punctis rugis longitudinalibus vix evidenter conjunctis; prothorace quam longiore sat minus duplo latiore, antice rotundato minus fortiter angustato, æquali, obscure punctulato, transversim curvatim sat crebre rugato, lateribus vix arcuatis, carinâ laterali sinuatâ marginem anteriorem haud attingente, basi mediâ breviter lobatâ; elytris antice subtilius punctulatis transversim subtilius rugatis, postice obscure punctatis vix rugatis; subtus squamose sat crebre punctulata. Long. $2\frac{3}{5}$ l.

Although this insect has a very ordinary appearance it does

not seem quite at home in any described genus known to me. The apportionment of species in genera is, however, so much better done when species can be treated *en masse* that I prefer avoiding the creation of new genera when possible in such a memoir as this, and I think no great violence is required to place the present insect in *Cisseis* provisionally. It must, nevertheless, be noted that its tarsi and antennæ are not those of a typical *Cisseis*, the former being rather strongly compressed, with the basal joint (on the posterior legs) not much longer than the second, and the latter having the fourth joint scarcely at all produced on the inner side, but almost identical in shape with the third. In both these respects there is an approach to *Coræbus*, but on the other hand the claws are those of a *Cisseis*, and the inner lateral carina of the thorax is traceable nearly to the anterior margin; the structure of the antennæ and of the scutellum (which is that of a *Cisseis*) forbids an association with *Discoderes*, and the structure of the claws as well as the general facies are inconsistent with my new genus *Neospades*. There are undoubtedly large numbers of Australian *Agrilidæ* allied to *Cisseis* still undescribed, and it is likely that as they are brought into notice our ideas of the limits of some genera may be a good deal modified. In some respects *C. constricta* (described above) is intermediate between the present species and a typical *Cisseis*.

I possess a single specimen which was sent to me by E. Meyrick, Esq., from Western Australia.

AGRILUS.

A. Australasiæ, L. and G., and *hypoleucus*, L. and G. The latter of these is quoted as above in Mr. Masters' catalogue, but should be, I think, *hypoleucus*, Hope. The former is stated by Germar to occur near Adelaide (the species he refers to is by no means uncommon in S. Australia), while the latter, under the names *assimilis* and *purpuratus* as well as *hypoleucus* (names which Mr. Masters himself quotes as synonymic) is attributed by the Rev. F. W. Hope to Western Australia, and also is said to have been taken by Mr. Fortnum, of Adelaide, at "Moriatta"—no doubt a mistake for "Morialta." Yet the only locality mentioned by Mr. Masters in the case of each of these insects is "New South Wales." Moreover there is great doubt, I think, as to the real distinctness of *Australasiæ* and *hypoleucus*.

Cisseis cupreicollis, Hope, and *cænicollis*, Hope (said to be a variety of same). These names are stated by their author to be applied to insects sent to him from "Moriatta." The frequent mention of this place by Mr. Hope as a hunting ground of Mr.

Fortnum, of Adelaide, leaves scarcely a doubt that it should be "Morialta."

In Masters' catalogue this insect is attributed to N.S. Wales only.

GERMARICA, *gen. nov.* [Trachydæ].

Aphanistico affinis, sed antennarum clava 7-articulata, capite vix canaliculato, tarsis longioribus, horum articulo quarto valde dilatato.

The insect for which I propose this generic name has quite the appearance of the European *Aphanisticus pusillus*, Herbst., but in spite of this striking resemblance cannot be associated with it, on account of structural differences in the head, antennæ, and tarsi. The head is hardly channelled; the antennæ are not longer than the width of the head, and are very stout, the apical seven joints strongly produced inward, so that these seven joints together form an abrupt club (remining one of the antennal club of *Syndesus* in the *Lucanidæ*) scarcely more than twice as long as it is wide, and longer than the four joints that precede it together. The tarsi are decidedly, though not very much, longer than those of *Aphanisticus*, their fourth joint much dilated, the claws very small. I do not know the genus *Paracephala*, Thoms., but its name cannot stand, having been previously used for a genus of *Phytophaga*. If Mr. Masters is right in attributing to it *Agrilus pistacinus*, Hope, the insect I am describing has nothing to do with it.

G. casuarinæ, sp. nov. Elongata, nigro-ænea; glabra; prothorace leviter transverso, lateribus haud explanatis; elytris leviter sparsim punctulatis. Long. $1\frac{1}{3}$ l., lat. $\frac{2}{5}$ l.

The whole upper surface is dulled somewhat by a system of very fine close puncturation; over this are sprinkled larger and very faint punctures, which are sparse on the head, much more so on the prothorax, numerous on the anterior half of the elytra, and obsolete behind. The prothorax is about half again as wide at the base as down the middle it is long, and has its sides gently rounded to the front, which is about three quarters of the width of the base; a transverse impression runs immediately in front of the base, which is bisinuate. The elytra are about four times as long as, and not wider than, the prothorax; they are sub-parallel in their anterior two-thirds, and then contracted to the apex. They have no trace of sculpture other than that described above. The under surface is evenly and very finely and closely punctured.

A few specimens were taken by me near Port Lincoln by beating *Casuarina*. There are also two examples, unticketed, in the S. Australian Museum.

MALACODERMIDÆ.

METRIORHYNCHUS.

M. vittatus, sp. nov. (mas). Piceo-niger, elytris (sutura late piceâ exceptâ) testaceo-fuscis; rostro quam latiore paulo longiore; prothorace 7-areolato; elytris quadricostatis, interstitiis biseriatis cancellato-punctulatis. Long. 5 l.

The antennæ are strongly flabellate; the produced part of joints three to ten is slender, that of three equal in length to the joint, that of four to ten longer than the length of the several joints. The thorax is a little reddish on the sides, which are strongly elevated; its base is strongly trisinuate and its area small (the width across the base scarcely equalling that of one of the elytra at its widest part). The pitchy stripe which runs down the suture occupies its width the whole space between the fourth interstices of the two elytra, and terminates at a distance from the apex about equal to the length of the thorax. The elytra are gently dilated to considerably behind the middle. The pairs of rows of punctures between the costæ on the elytra are separated by distinct lines. The penultimate ventral segment is incised nearly to the base by a parallel-sided incision.

A single specimen occurred to me at Port Lincoln, on flowers.

N.B.—I possess a female, also from Port Lincoln, which I think must be paired with the above-described male, in spite of some structural discrepancies. It is considerably smaller ($3\frac{3}{4}$ l.); the rostrum is shorter, being not quite so long as wide (in the male it is nearly half again as long as wide), and the thorax is less strongly sinuate behind, with the hinder angles much less pronounced. In spite of these differences the specimens agree so perfectly in all other respects—including the very distinctive marking of the elytra—that (taking into account their having been found on the same day and on flowers of the same tree) I do not feel justified in treating them as distinct species. The antennæ, of course, differ in the manner that is usual in the genus.

M. Meyricki, sp. nov. (mas). Niger; elytris (sutura apiceque nigris exceptis) rufis; rostro nullo; prothorace 7-areolato; elytris basi quadricostatis, costis primâ et tertiâ postice subobsoletis; interstitiis uniseriatim cancellato-punctulatis. Long. 3— $3\frac{1}{2}$ l.

The antennæ are very strongly dentate, each of joints three to ten being a trifle longer than wide, and at its apex (which is not emarginate) about twice as wide as at its base. The seven areolæ of the thorax are very clearly defined; the base of the thorax is rather strongly trisinuate, and the hinder angles quite

sharp. The black marking of the elytra consists of a common vitta, which covers at the base the space between the first costa on the two elytra, and gradually dilates backward till it touches the lateral margins at a distance from the apex about equal to the length of the hind tarsi. The first and third costæ are at the base scarcely feebler than the other two, but backward they soon become no more elevated than the transverse lines of the interstices. The penultimate ventral segment is semicircularly incised in the middle.

Three specimens (all males) were sent to me from Western Australia by E. Meyrick, Esq.

TELEPHORUS.

The following three species are, I think, not true members of this genus, although they are near enough to be attributed to it in a general sense provisionally. As it is possible they may fall into M. Fairemaire's genus *Selenurus*, of which I cannot procure a description (certainly none of them are identical with the *species* he has described), I am not justified in giving them a new name. They differ from *Telephorus* in the shape of the elytra, which are abruptly and strongly contracted from the middle to the apex (which is separately rounded), so that close to the apex they are not more than half as wide as at the base, and leave a wide piece of the upper surface of the hind-body exposed on either side; also they have no trace of a spine at the apex of the tibiæ. The apical joint of the maxillary palpi is subcultriform and three or four times as long as the preceding joint.

I possess six examples presenting the above characters, which belong, I think, to three closely allied species. Among these there appear to be five females and one male,* and the sexual differences are very well marked. The male (of course this may not apply to the males of all three species, though in all probability it does) has the head enormously developed, being across the eyes very decidedly wider than the thorax, and quite as wide as the elytra at their widest part. Its hind body on the underside has the lateral (or pleural) portion very wide indeed, and the discal part narrow, and evenly and gently convex, the penultimate segment being extremely deeply incised, with the small apical segment enclosed within the incision and protruding beyond it. In the female the head is considerably narrower than the thorax; the hind body resembles that of the male in general form except that the middle part is pinched together (as it were) into a longitudinal keel on either side of

* It is just barely possible that I may have reversed the sexes; I have no absolute proof as to which is which.

which the surface is longitudinally concave. This appearance is probably caused by the drying up of the soft body, as it is not symmetrical in any of my specimens but it is strongly marked in all the females and absent in the male. The segment in the female corresponding to the penultimate in the male is semicircularly and rather narrowly incised in the middle, and a strong tooth projects from the hinder edge of the incision, the cavity formed by this incision being filled up by an elongate organ which I take to be the ovipositor and which scarcely protrudes beyond the end of the segment. These insects might be referred to the genus *Ichthyurus* were it not for the total incompatibility of their sexual characters.

The fourth species described below (*T. pauvillus*) has quite the facies of a true *Telephorus*, but is not likely to retain its place there when the Australian species come to be dealt with *en masse* by a competent authority. Its tibiæ are devoid of any distinct apical spine, and the last joint of its maxillary palpi is not securiform but oval, with the apex truncate; and is very much wider, and considerably longer, than the preceding joint. I do not observe any other very notable difference from *Telephorus*, but have not dissected a specimen. I may add the remark concerning the Australian species in general attributed to *Telephorus* that their place there seems to me only provisional, *T. pulchellus*, W. S. Macleay, for example, having tibiæ devoid of apical spines, peculiar maxillary palpi, and sexual organs, &c.

T. proprius, sp. nov. (mas). Parce pubescens; testaceus; capite postice, palpis antennis, pedibus (femoribus basi exceptis), metasterno et abdominis segmentis postice, piceis vel piceo-nigris; elytris cyaneo-nigris, haud nitidis, confuse subgranulatis; antennis corpore vix brevioribus. Feminae capite toto nigro, elytris antice subnitidis; antennis corpore evidententer brevioribus. Long. 3—3½ l.

The thorax is widest in front, and is gently and roundly narrowed to the base, with all its angles rounded off. It is slightly wider than long; its surface is smooth and shining, but somewhat (and undefinedly) uneven. Especially there appears to be a vague depression in the middle, the central part of which is roundly protuberant, and there are some indistinct depressions and calli about the sides. On the elytra a scarcely traceable costa runs from the shoulder towards the hinder part of the suture. In the male the elytra are nearly opaque at the base, and become quite so towards the apex. In the female they are subnitid about the base and opaque behind. The surface is subgranulate or coarsely coriaceous; more coarsely in front than behind. The difference in colour between the male

and female is probably an accidental variety rather than a sexual distinction.

Three specimens occurred on flowers near Port Lincoln.

T. Andersoni, sp. nov. (femina). Parce pubescens; testaceus; capite, antennis, palpis, pedibus, lineis in prothorace nonnullis, et maculis in corpore subtus, nigris vel piceo-nigris; elytris læte cyaneis, antice nitidis sublævigatis; postice opacis, granulatis; antennis corpore multo brevioribus. Long. 3—3½ l.

The antennæ are scarcely three-quarters the length of the body. The thorax has the following dark marks:—A short line a little within the margin about the middle of each side, a still shorter line on either side close to the base, and a small spot in the middle (almost obsolete in one of my specimens; probably these are variable). It is decidedly transverse, and is scarcely narrowed behind. On the under side the coxæ, some marks about the apex of the metasternum, and a spot on either side of each of the first five segments of the hind body are blackish. Dedicated to my friend Mr. J. Anderson, of Port Lincoln.

Two specimens occurred on flowers near Port Lincoln.

T. vibex, sp. nov. (femina). Parce pubescens; flavus; capite (maculâ flavâ posticâ exceptâ), palpis, antennis, pedibus, maculis nonnullis in coxis, metasterno, abdominisque apice, nigris; elytris violaceis, antice sublævigatis nitidis valde inæqualibus, postice opacis granulatis; antennis corpore sat brevioribus. Long. 4¼ l.

The head has a large yellow triangular patch behind, the apex of which runs out between the hind part of the eyes. There are some indications of similar marking in the preceding species. The thorax resembles that of *T. Andersoni*, but is a little more contracted hindward, and entirely testaceous. The underside is entirely of a bright canary-yellow colour, except the coxæ (which are black, spotted with yellow) and the head metasternum and extremity of hind body (which are marked with black). The elytra have the humeral callus well defined, and between it and the suture there is a large strongly convex elongate wheal which runs about a third of the distance to the apex, gradually narrowing on its external side. The antennæ are about three-quarters the length of the body.

I possess a single specimen, taken in Victoria. The exact locality is not known to me.

T. pauxillus, sp. nov. Sat elongatus; parallelus; niger vel æneo-niger, prothorace testaceo, hoc quam longiori plus duplo latiori; elytris pubescentibus crebre rugose punctulatis; maris antennis corpore vix, feminae sat evidenter, brevioribus. Long. 4¼ l.

The head is shining black, impunctate, or nearly so; the prothorax is equally wide before and behind, about twice and a half as wide as long, with the sides gently arched, the angles all rounded off. The elytra are five times as long as the thorax, but not wider than it, their surface rather densely covered with whitish hairs. In some specimens there is a tendency to fuscous clouding about the front and hinder part of the thorax. The underside is shining black.

Near Port Lincoln; generally obtained by sweeping low scrub.

LAIUS.

L. conicicornis, sp. nov. (mas.) Niger, capite prothoraceque flavo-notatis; elytris cœruleis flavo bifasciatis; antennis palpis pedibusque plus minusve flavis, abdominis segmentis postice flavo-marginatis.

Antennarum articulis 1° et 2° valde dilatatis, ceteris gradatim angustatis. Long. 3 l.

The yellow markings on the head consist of a circular ring (interrupted in some examples) touching both the eyes, and a spot within it (sometimes obsolete); the front of the clypeus and the labrum also are yellow (black-lined in some examples). The thorax has a wide yellow margin all round except at the middle of the base (in some examples this margin is infuscate along the front). The anterior elytral fascia has the middle (longitudinally) of its narrowest part at about the middle (longitudinally) of the elytra but is dilated (a little backward and strongly forward) on the suture and the margins, running up the suture nearly to the scutellum. At its narrowest part its width about equals the length of the basal joint of the antennæ; hence its front and hind margins are on each elytron concave, the front being strongly and evenly so, the hind less evenly and much less strongly. The hinder elytral fascia occupies the apex, commencing on either side at a distance from the sutural angle about equal to the length of the hind tarsus and being widely and squarely produced up the suture about half-way to the hinder edge of the anterior fascia. The basal two joints of the antennæ are bright testaceous, the remainder more or less pitchy. The following parts of the underside are yellow—the prosternum (except sometimes the anterior coxæ) a narrow hind margin to all the ventral segments except the last, and the middle part (sometimes very narrowly) of the basal two segments. The front legs, the intermediate tibiæ, and the extreme apex of the hind tibiæ are testaceous. The tarsi (except the front ones) are more or less pitchy. The basal joint of the antennæ forms an elongate triangle placed on the end of a short cylindric stem; its apex

(which is its widest part) is somewhat emarginate and is a little wider than the width of the apex of the front tibia, being about two-thirds as wide as the joint is long. The second joint springs from the external apex of the first joint, than which it is a half shorter; it is very strongly dilated on the inner side, in such fashion that it is fully as wide as the apex of the basal joint and is slightly longer on the inner than the outer side, its inner face being emarginate. The third joint is two-thirds of the length and less than half the width of the second, it is dilated on the inner side and is slightly wider than long. The next six joints resemble it in shape and length, except that the dilatation of each in succession becomes less, and so the joint narrower in proportion to its length. The apical joint is quite slender and about twice as long as the ninth. Thus the apical eight joints form an aggregate wide at the base and tapering regularly to a point at the summit. The head is scarcely shining, coarsely and closely punctured; prothorax with the black space shining and sparingly and strongly punctured, the yellow margins sub-opaque and coarsely punctured. The puncturation of the elytra is sparing and not very strong about the base and apex; towards the middle coarse and close with a tendency to transverse wrinkling. The whole insect is sparingly clothed with long hairs. The prothorax is once and two thirds as wide as long and is five-sixths the width of the elytra; the latter are almost parallel-sided. The markings vary in colour from yellow to yellowish red.

I have not seen this insect except from the Port Lincoln district. The female is unknown to me.

L. nodicornis, sp. nov. (mas.) Cyaneus; antennis, capite, prothorace, elytris, pedibus, et corpore subtus in parte rufiflavis.

Antennarum articulo secundo primo plus duplo majore, primo externe dentato. Long. 2 l.

On the head, the front of the clypeus, and the cheeks are testaceous or red; also on the antennæ, the upper external margin of the basal and whole upper surface of the second joints; on the prothorax the whole surface except the middle of the base; on the elytra a fascia in the middle resembling that of the preceding species but less produced on the suture and margins, and a large apical spot; on the underside the hind margins of the ventral segments; the anterior legs are pitchy testaceous. The basal joint of the antennæ is of the length of the diameter of the eye and is somewhat pear shaped with the external margin produced into a large blunt tooth; the second joint forms a large roundish disc, in area a little

larger than the eye, its under surface blackish and sub-globular, its upper surface testaceous, flattish, and divided into three or four well-defined areolæ; the next four joints are narrow, sub-conic, a little produced on the inner side and very slightly decreasing in width successively; the remainder are broken off in my specimen but probably resemble those immediately preceding them. The upper surface is shining, the head and thorax obscurely punctured, the elytra punctured sparingly and largely about the base and apex, much more closely and coarsely on the intermediate space. The whole insect is clothed with long hairs. The elytra widest behind, where together they are nearly half again as wide as the thorax.

The female differs from the male in being darker coloured (probably a mere accidental variation in the single example before me), having the whole disc of the thorax black and the legs (except the anterior tarsi) wholly pitchy. Its antennæ are pitchy black, the external (supposing the antennæ directed forwards) margin of the basal joints paler, the basal joint resembling that of the male, but unarmed, the second much smaller than the first, obtusely produced internally, the remaining joints slightly narrowed in succession, and each rather sharply produced internally, so that the internal outline of the antennæ as a whole is distinctly serrate.

Taken by Mr. Rothe near Sedan.

L. distortus, sp. nov. Nigro-cyaneus; antennis, capite, prothorace, elytris, pedibusque, in parte testaceis (mas.)—antennarum articulo secundo primo plus duplo majore, primo apice acute spinoso. Long. $1\frac{1}{2}$ l.

The basal two joints of the antennæ, the cheeks, the whole prothorax (except a large black discal spot) and the apex of the elytra, are testaceous; the tibiæ and tarsi are more or less pitchy testaceous. The basal joint of the antennæ about equals in length the diameter of the eye; it is pear-shaped, with a strong erect spine at its apex. The second joint is almost a parallelogram in shape and is twice as wide as long; in area it is larger than the eye; it is attached to the first joint at a point half-way between the middle and the internal end of its base, while the third joint springs almost from the external end of its apical edge. The remaining joints are all slender and subconical, scarcely differing from each other in width but gradually increasing in length. The head and thorax are quite shining, and are only obscurely punctured. The elytra are subopaque, closely and finely punctured (a little more shining and more sparingly punctured about the base and apex) and are dotted over with small tubercle-like pustules. The

whole insect is clothed with long erect hairs. The prothorax is quite twice as wide as long, and is about three-quarters the width of the elytra behind the middle, where they are widest.

The female scarcely differs from the male in size, colour, or markings; the legs, however, are a little more uniformly piceous. The antennæ scarcely differ from those of female *L. nodicornis* except in the basal two joints being clear testaceous.

Two specimens on the flowers of a species of *Acacia* near Port Lincoln.

N.B.—It is to be noted that in the above descriptions the second joint of the antennæ in the male is supposed to be viewed from directly above its flattened upper surface. From other points of view its appearance is quite different.

CISSIDÆ.

LYCTUS.

L. (Xylotrogus) brunneus, Steph. In Mr. Masters' catalogue (Proc. Linn. Soc., N.S.W.) this species, probably by a clerical error, is entered as "*L. brunneus*, J. W. Douglas," followed by a reference to the Ent. M. Mag., 1876. In the article referred to, however, Mr. Douglas merely records the fact of his having found *L. brunneus* in England under the bark of some logs of wood that had been imported from Western Australia. The species was described by Stephens long ago in the "Illustrations of British Entomology," and appears to be cosmopolitan. I have met with it myself in the Hawaiian Islands (*vide* Trans. Roy. Dublin Soc., 1885), and it has been recorded from many other localities. M. Lacordaire (in the Gen. des Coléoptères) rejects Mr. Stephens' genus *Xylotrogus* as a frivolous subdivision of *Lyctus*, saying that it has no other distinctive character than the absence of a deep longitudinal fovea on the thorax. I have not Stephens' description to refer to, but whether it notices the following characters or not the species on which the genus is founded differs from typical *Lyctus* in the very evident separation of the anterior coxæ; so that either M. Lacordaire's "hanches antérieures contiguës" in his diagnosis of *Lyctus* requires to be amended or Mr. Stephens' genus must stand. I prefer the former alternative, as it appears to me that the degree of contiguity of the anterior coxæ is not of generic importance in insects of the *Lyctus* type.

L. costatus, sp. nov. Subopacus; elongatus; piceus; prothoracis latitudine majori antice posita; elytris perobscure lineatim punctulatis; interstitiis 4°, 6°, et 8° evidenter elevatis; coxis anterioribus haud contiguis. Long. 2½ l.

This species is clothed with short pubescence, less sparingly

and more evenly than is usual in the genus; the whole surface being minutely coriaceous gives it a dull appearance. It is almost entirely concolorous, except that the thorax is a little the darkest part. The head and thorax are rather coarsely and closely punctured; the latter is strongly convex in front. Immediately behind the front the lateral margins are curved pretty strongly inwards for a short distance, and then curve outwards very slightly to the base, so that their outline is concave, the widest part being the anterior margin. The surface of the thorax is a little uneven, the most evident depression being elongate, wide and shallow, and occupying the hinder part of the disc. Between the suture and what would be the fourth interstice if the puncturation ran evenly in rows there is no distinct puncturation at all. This fourth interstice is slightly elevated and continuously distinct, except at the extreme base and apex; then follow five rows of punctures, clearly traceable under a good lens, the interstices between the second and third and between the fourth and fifth of them being similar to that which precedes them. Hence to the lateral margin the sculpture becomes quite faint and confused again, but there are indications of two obscure costæ near the margin. The sculpture is so slight that under a lens of only moderate power none of it is noticeable except the three slender raised interstices. The anterior coxæ are about as far apart as in *L. brunneus*, and the front part of the prosternum is evenly convex as in that species.

Larger than *L. brunneus*, much less shining, differently coloured, the prothorax more coarsely punctured, and more noticeably at its widest in front; the elytra much more obscurely punctured, and with the raised interstices very much more conspicuous.

A single example occurred at Port Lincoln.

L. parallelocollis, sp. nov. Sat nitidus; elongatus; rufo-piceus; prothoracis lateribus subparallelis, sub-crenulatis; elytris subtiliter striato-punctatis; interstitiis vix convexis. Long. $1\frac{2}{3}$ — $2\frac{1}{3}$ l.

More shining and less pubescent than *L. costatus*. Head and prothorax very strongly but not closely punctured. The latter transverse, its front margin strongly convex, its sides nearly straight, the hinder portion of its disc widely flattened. The elytra are distinctly striated, the striæ almost strongly punctured, the sculpture best defined on the disc, where and towards the apex the interstices have a tendency to be convex. The anterior coxæ are separated a little more decidedly than in *L. brunneus*. The anterior part of the prosternum is widely flattened in the middle. In some specimens (perhaps males)

there is a conspicuous rounded tubercle on the hinder part of the under surface of the head, a little in front of the prosternum.

I have taken this insect several times under bark of Eucalyptus, about 30 miles north of Port Lincoln.

L. discedens, sp. nov. Nitidus; elongatus; rufo-castaneus; prothoracis latitudine majori antice posita; elytris subtilissime seriatim punctulatis; interstitiis planis lævigatis; coxis anterioribus sat late separatis. Long. $1\frac{1}{2}$ l.

A very shining species, almost devoid of pubescence. The head and thorax are finely and not at all closely punctured, otherwise resembling the same parts in *L. costatus*. The punctures of the elytral rows are extremely fine, scarcely discernible near the suture; the interstices smooth and shining, and quite flat, except on the hinder part of the disc, where they are scarcely convex. The considerable separation of the anterior coxæ would appear inconsistent with a place in the genus *Lyctus*, but (as I have observed above) there is variation in this respect among the species of the Northern Hemisphere, and I can discover no other difference in this insect from ordinary types.

I have met with this species rarely in the Port Lincoln district under the bark of Eucalyptus.

CIS.

C. Australis, sp. nov. Sat latus; confertim irregulariter sat fortiter punctulatus; nigro-fuscus; sparsim breviter argenteo vel albo pubescens; labro, palpis, antennis (basi exceptâ) pedibusque testaceis; prothoracis margine antico et elytris plus minusve rufescentibus. Long. $\frac{3}{4}$ —1 l.

A broad robust species resembling *C. boleti*, Scopoli, in form, but with the margins of the thorax not explanate. The eyes are very little prominent. The thorax at its base is very little (to the eye it appears not at all) wider than its length; viewed from above it seems to be evenly contracted towards the front, but when the fine margin is looked at from the side it is seen to be rather strongly rounded; its front margin projects over the head about as much as in *C. boleti*; its surface is devoid of impressions and is evenly, rather strongly, and moderately closely punctured. The scutellum is more transverse than that of *C. boleti*. The elytra are punctured a little more coarsely than the thorax, the punctures without any tendency to run into rows, and being very confusedly and a little rugosely mixed together, large and small intermingled; the puncturation, however, as compared with that of the elytra of *C. boleti*, being on the whole very much finer and less rugose. The

puncturation of the underside is very sparing, scratchy, and obscure.

Port Lincoln; occasionally in hard fungi on trees. As far as my experience goes the commonest species of the genus, but I have not found any commonly.

C. æqualis, sp. nov. Minus latus; sat elongatus; vix pubescens; æqualiter, minus fortiter, minus crebre punctulatus; coloribus ut in *C. Australi*. Long. $\frac{3}{4}$ l.

The colouring of this little species is exactly that of the preceding, than which it is much more elongate in form, and much more shining. Under a strong lens a very sparing and very short silvery pubescence can be traced, but under an ordinary lens it appears glabrous. The puncturation is very even over the whole surface, is tolerably strong, but not at all coarse or rugose, moderately close, and without any tendency to run in lines. The thorax (which is decidedly transverse) viewed from above appears to be narrowed in something of a curve from the base to the apex; when examined from the side the lateral edging is seen to be considerably finer than in *C. australis* and less strongly rounded in outline; the front margin also is much less convex, not projecting conspicuously over the head. The sculpture of the underside, as in the preceding, is extremely ill defined and scratchy in appearance.

C. munitus, sp. nov. Sat latus; minus nitidus; breviter pubescens; subtiliter confertim punctulatus; fuscus, antennis, palpis pedibusque testaceis; maris capite prothoraceque laminâ transversâ erectâ instructis. Long. $\frac{4}{5}$ l.

This is a wide, very short, species, with elytra not much longer than the head and prothorax together. The latter is very massive, not much wider than long, contracted in a curve, very little from the base to about the middle, and thence rather strongly to the front; the actual lateral margin (which is extremely fine) is, as in *C. australis*, invisible from above. The puncturation of the whole upper surface is rugose, fine, and very close, without any tendency to run into rows. In the male the clypeus is raised in front into a wide erect lamina, emarginate at its apex, about equal in height and width, both height and width being about equal to the distance from the base of the lamina to the apex of the thorax; the front of the thorax rises into a similar lamina, parallel to, and about equal in size with, that of the clypeus.

Port Lincoln.

C. Adelaideæ, sp. nov. Oblongus; nitidus; glaber; sparsim subtiliter punctulatus; nigro-fuscus; antennis, palpis, pedibus, et elytris apicem versus dilutioribus. Long. $\frac{2}{3}$ l.

Somewhat of the same shape as *C. æqualis* but with the sides of the elytra less parallel. The prothorax is rather strongly transverse, with strongly rounded sides and front a good deal produced over the head (the actual lateral margin is very fine and is not visible from above); it is also very convex above longitudinally (*i.e.*, viewed from the side); under a strong lens the puncturation is seen to be moderately large and not very sparse, but shallow. The elytra are very shining, and almost punctureless; under a good Coddington lens there are traces just discernible of very fine and sparing puncturation.

A single specimen was taken by me near Adelaide.

C. setiferus, sp. nov. Sat elongatus; subopacus; niger, setis brevibus erectis albis vestitus; antennis (clava excepta) palpis pedibusque testaceis; prothorace sparsius, elytris sat crebre, rugulose punctulatis. Long. $\frac{3}{5}$ l.

A rather narrow elongate species, a little wide behind the middle of the elytra, rather evenly beset all over with close erect short stout setæ of a silvery-white colour which tend to run in rows on the elytra. The prothorax is scarcely wider than long, a good deal produced over the head in front, contracted from the base to the apex (most strongly near the base), the sides little rounded, the lateral edging fine, but not excessively so, and visible from above, the surface finely coriaceous and also pretty closely set with larger shallow punctures. The elytra are obscurely but closely and rather rugosely punctured. The puncturation of the underside is ill-defined and obscure under a Coddington lens.

Two specimens in my collection, from Roseworthy.

TENEBRIONIDÆ.

SCYMENA.

The insect that forms the subject of the following description appears to belong to this genus, which was founded by Mr. Pascoe in 1866, for a species from N.S.W. It was, however, only very briefly characterised as follows (I translate from the Latin)—“Characters as in *Phaleria*, but the clypeus deeply and squarely excised. Antennæ shorter than the head. Interfemoral process acute at the apex.” Four years later Mr. Pascoe described a second species (from Western Australia) in the “Annals of Natural History,” and describes its antennæ as “nearly as long as the *width* of the head,” which introduces an ambiguity I think into the generic characters. In characterizing the *species*, however, he says, “closely resembles *Phaleria cadaverina*.” The species now before me so singularly resembles that insect that I have little doubt of its generic connection with Mr. Pascoe’s insects. But if I am

right in this it is evident that Mr. Pascoe had not seen the male, the sexual characters of which are inconsistent with its being placed in the same *family* even as *Phaleria* (according to M. Lacodaire's system). In describing as a *Scymena* therefore the following species it will be necessary to premise that its antennæ are *quite* as long as the width of the head, that its maxillary palpi have the apical joint subsecuriform, that the metasternum is evidently shorter than that of *Phaleria*, that the elytra are ciliated round the lateral margins, and that in the male the anterior and intermediate tarsi are strongly dilated, while in the female the external margin of the anterior tibia is strongly and roundly dilated at the apex. These characters in conjunction with the quadrate emargination of the clypeus would place the insect in the subfamily *Pedinidæ* of M. Lacodaire, which up to the present time I believe has had no described Australian representative. It is of course quite *possible* that it may not be congeneric with Mr. Pascoe's *Scymena*, but under all the circumstances I think it is better not to propose a new name.

S. Australis, sp. nov. Sat nitida, ferruginea, labro nigro; elytris striatis, striis fortiter, interstitiis vix evidentior, punctulatis. Long. 3 l.

The colour is pale ferruginous, in some parts (generally the head and scutellum) inclining to rufous. The labrum is black. On the underside there is a good deal of reddish colouring down the centre, and the coxæ are almost *fuscous* red in some examples, in some examples the metasternum being conspicuously pallid. The head and prothorax are faintly and moderately closely, but not very finely, punctured. The latter is (across the base) quite twice as wide as it is long down the middle. The scutellum is strongly transverse and triangular in shape. The elytra are striated, not very deeply, each stria containing a row of closely-set strong punctures. Under a good Coddington lens the interstices show faint indications of fine puncturation; the two or three nearest to the suture are slightly convex, the rest almost perfectly flat. The external margin of all the tibiæ is ciliated and obscurely denticulate.

Several specimens (only one of them a male) occurred to me under marine rejectamenta at Port Lincoln.

Differs from both the previously described species of *Scymena* in the greater length of its antennæ. Probably the difference in this respect from *S. amphibia*, Pasc., is not very marked, but that insect is said to have "sulcate punctate" elytra.

CÆDIUS.

C. Lindi, sp. nov. Breviter ovatus; ater, antennarum apice tarsisque rufis; capite prothoraceque granulatis; elytris obscure rugosis, sparsim subtiliter confuse granulatis, punctulato-striatis, interstitiis latis planis. Long. $2\frac{1}{2}$ — $2\frac{3}{4}$ l.

This species appears to be closely allied to *C. sphaeroides*, which was described A.D. 1842 by the Rev. F. W. Hope, on specimens from Adelaide. Unfortunately, Mr. Hope's description is very brief, consisting of 23 words. In 1859 M. Lacordaire incidentally supplied a somewhat fuller, though not a formal and detailed description. I think I have identified the insect, although if so Mr. Hope's characters are not perfectly exact even as far as they go, and on that account I abstain from furnishing a detailed description of what I take to be *C. sphaeroides*. I may just observe, however, that it differs from the description in being of a *pitchy* colour rather than "black," in having the elytra minutely covered with fine dust-like brownish scales (which might have been rubbed off in the type), and in having the thorax not punctulate but granulate when carefully examined—a character, however, which is not very noticeable, except under a very strong lens. It is the only *Cædius* that has come under my notice as occurring near Adelaide. I think there is a doubt as to the identity of the specimen or specimens M. Lacordaire examined with the type, as the learned French author says it is as large as an average-sized *Opatrum*, whereas Mr. Hope gives $2\frac{1}{4}$ l. as the size, which would be much smaller.

The species I have described above is certainly distinct. Its colour is deep black, excepting the tarsi, the mouth organs, and the antennæ, which are reddish, especially the apical joint of the last named. The thorax is considerably more than twice as wide as long; it is strongly emarginate in front and narrowly but distinctly lobed in the middle behind; its lateral margin is broadly thickened, and it is arcuately widened from the front nearly to the base, and thence briefly narrowed. The elytra are feebly striated, the striæ set with rather large but feeble punctures, the interstices flat. Under a powerful lens the interstices are seen to be set with small, and very small, tubercles or granules confusedly mixed together. The anterior tibiæ are triangularly dilated, at the apex externally; there is a well-defined tooth on the external margin just above the middle, above which the margin is obscurely serrate, and in some specimens (occasionally on one tibia only) an additional tooth just above the apical dilatation. The intermediate and posterior tibiæ are denticulate, and spined on the external margin.

This species differs from *C. sphaeroides* as described by Mr. Hope in respect of its granular prothorax and non-pilose elytra. It differs from the insect that I suppose to be *C. sphaeroides*, *inter alia*, by its larger size, deep black colour, non-pilose elytra—(it is just possible that the few examples I have seen were abraded)—and especially by the wide flat interstices of the striæ on the elytra.

Port Lincoln, in sandy places. Rare.

CÆDIOMORPHA, *gen. nov.*

Antennarum articulus 11^{us} 10^o minor; prothorax basi haud bisinuatus, marginibus lateralibus latis; tibiæ intermediae et posteriores externe denticulatae; metasternum brevissimum; corpus suborbiculare.

In other respects I do not observe any difference in the characters from those of *Cædius* as given by M. Lacordaire in the "Genera des Coléoptères." The orbicular shape and the very short metasternum are the most striking features. From *Sobas* (which is not known to me, except by description) this genus may be at once distinguished by the strong anterior triangular emargination of the clypeus, by the presence of a distinct (though small) scutellum, by the posterior four tibiæ not being "simple," and by the form of the antennæ.

C. australis, sp. nov. Piceo-nigra; antennis, palpis, elytrorum marginibus et pedibus piceo-rufis; capite prothoraceque crasse squamose nec crebre punctulatis; elytris obscure striatis, striis crasse, interstitiis fortiter crebrius rugose, punctulatis; subtus crasse crebrius punctulata.

This insect is sparingly beset with very short and but little noticeable hair-like scales of a pale colour, which are a little condensed about the sides of the prothorax; the prothorax and elytra are both ciliated with rather long hairs. The sculpture of the elytra is very peculiar. The entire surface (rather than the interstices as such) is pretty closely covered with strong coarse puncturation; on this a fairly-defined system of striæ seems to be added, with their own serial punctures, which are evidently larger than (though somewhat mixed up with) the punctures of the general surface. The anterior tibiæ are very strongly and triangularly dilated from the base to the apex, the width across the apex being quite half the length. The external margin above the middle is cut into teeth varying in size and number from one large tooth to four or five small ones. The intermediate tibiæ are rather strongly, the hind tibiæ more finely, denticulate externally. The underside of the tarsi resembles the same in *Cædius*. The general form resembles that of *Cytilus*.

Widely distributed in South Australia.

PLATYDEMA.

P. fossulata, sp. nov. Rotundato-ovalis; sat convexa; subnitida; supra nigra; clypeo antice, antennis, palpis, et elytrorum singulorum maculis duabus, testaceo-rufis; subtus brunneo-testacea; pedibus testaceis; capite postice profunde (maris?), leviter (feminae?) concavo. Long. 2 l., lat. $1\frac{1}{5}$ l.

The head and prothorax are moderately strongly, and not very closely, punctured. The width of the prothorax at its base is more than twice its length down the middle, and nearly twice the width of its front margin; the front margin is almost truncate, the base strongly bisinuate, the sides arcuately narrowed from base to front; the hind corners are rectangular and there is a well defined elongate longitudinal fovea on either side at the base half-way between the middle and the hind angles. The elytra are quite strongly striated, the striæ rather finely and closely punctured; the interstices are wide and gently convex (more sharply so towards the sides and apex) and are evenly, very finely, and not closely punctured. The red markings consist of a small ill-defined patch at the humeral angle and an irregular wide stripe on the lateral margin commencing a little behind the middle and extending to the apex. The portion of the head between the eyes is occupied in one of my specimens by a very deep, somewhat semicircular excavation, the sides of which form on either side a strong convex ridge between it and the eye, in the other specimen by a wide shallow depression.

This species would appear to be somewhat allied to *P. limacella*, Pasc, and to differ from it, *inter alia*, in the markings of the prothorax and elytra, in the absence of depression on the part of the prothorax near the scutellum, in the presence of longitudinal foveæ at the base of the prothorax, and in the characters of the head in the male (supposing, and I think there is no doubt, that one at least of my specimens is a male). The elongated basal joint of the hind tarsi, the antennæ much longer than the prothorax, the complete epipleural fold of the elytra, &c., distinguish it from *Hoplocephala* which in some respects it resembles.

Port Lincoln. In a rotten trunk of *Casuarina*.

MESOTRETIS.

M. ferrugineus, Bates (var.?). Among a number of *Coleoptera* sent to me from Western Australia last year by E. Meyrick, Esq., I find a single example appertaining to this genus which I think is probably a variety of the above species. It differs, however, in some particulars that it seems desirable to place on record. The blackish markings mentioned by Mr. Bates are

entirely absent; the puncturation of the underside, while finer and closer than that of the upper surface, is more evenly distributed than I should judge from the description that it is in Mr. Bates' insect, and the hinder angles of the thorax, instead of being obtuse, are exactly right angles, and owing to a very faint sinuation of the sides immediately in front of them appear to be slightly directed obliquely outwards. It is quite possible that this may be a distinct, very closely allied species, but nevertheless the differences are not, I think, inconsistent with the possibility of specific identity.

ULOMOIDES, *gen. nov.*

Antennæ subfiliformes; oculi prominentes; tarsi simplices.

Mentum rounded in front, a strongly elevated keel down its middle; apical joint of the labial palpi sub-securiform, of the maxillary large and moderately securiform; mandibles bifid at the extremity; labrum transverse, emarginate in front; epistoma bent down in front, very rapidly widened backwards, the suture obsolete; antennary orbits moderate, not produced laterally so much as the eyes; antennæ nearly as long as the head and thorax together; joints two to four, narrow, not transverse, three nearly equal to two and four together, five to ten about equal in width, but gradually shortening till nine and ten are moderately transverse, eleven of same width, but longer; femora very little narrowed at base; tibiæ not denticulate, tarsi hairy beneath, moderately slender, basal joint of posterior pair equal to the next two together, apical joint of all moderately elongate; general form depressed. Trochantins of intermediate coxæ not visible.

The above-mentioned characters will differentiate this from all other described genera. It differs from most of the *Ulomidæ* in having somewhat elongate antennæ, and eyes more prominent than the antennary orbits, in which respects it resembles *Mesotretis*, but differs from that genus in respect of its slender simple tarsi and antennæ devoid of a club.

U. humeralis, sp. nov. Subparallelus; sat depressus; minus nitidus; ferrugineus, capite postice, elytris (humeris exceptis) abdomineque picescentibus; capite prothoraceque confertim subtiliter punctatis; elytris leviter striatis; striis fortiter, interstitiis planis subtilius, punctulatis. Long. 2 l.

The prosternum is finely and very closely punctured, except its intercoxal process, which slopes downward somewhat behind the coxæ, and then is turned up at the apex; the metasternum and hind body are finely and rather closely punctured in the middle, very sparingly and very strongly at the sides. The last

two ventral sutures are (as in *Alphitobius*) excessively strongly impressed and angulated at the sides, the fourth being much shorter than the third or fifth. On the upper surface the puncturation (as compared with that of *Alphitobius piceus*, Ol.) is very much finer and closer on the head and thorax, while the elytra are more distinctly punctate-striate, with the interstices much more finely and about equally closely punctured. There is a fairly well defined longitudinal fovea at the base of the thorax on either side.

A few specimens occurred under the bark of drift logs after a flood in the Torrens.

LINDIA, *gen. nov.*

Antennæ clavatæ, clavâ 4-articulatâ; oculi sat prominentes; tarsi simplices; corpus cylindricum.

Mentum truncate in front, not keeled, apical joint of labial palpi ovate, of maxillary elongate oblong; mandibles bifid at apex; labrum transverse, at apex slightly emarginate and ciliated; epistoma scarcely emarginate in front, rapidly widened backwards, its suture obsolete; antennary orbits produced laterally as much as the eyes; antennæ as long as the head and thorax together, joints one and two short, three equal to the preceding two, four shorter, five to seven gradually increasing in width and length, eight to eleven forming a rather strong club nearly as long as all the preceding together, eight to ten strongly transverse, eleven narrower, roundly transverse; femora very little narrowed at base; tibiæ not denticulate; tarsi moderately slender, hairy beneath, apical joint nearly equal to all the preceding together, basal joint of posterior pair equal to the next two together; trochantins of intermediate coxæ not visible; general form cylindrical, resembling *Hypophlæus*.

The little insect for which I found this genus is, I think, closely allied to *Hypophlæus*, differing from it chiefly by its even narrower form, distinctly four-jointed antennal club, less prominent eyes as compared with the antennary orbits, comparatively longer basal joint of the hind tarsi, and more deeply-impressed sutures between the apical ventral segments. The apical part of the pygidium (but not so much of it as in *Hypophlæus*) is exposed.

L. angusta, sp. nov. Minus nitida; cylindrica; ferruginea, capite prothoraceque obscurioribus; confertim subtiliter punctata; prothorace quam latiore paullo longiore; elytris sparsim transversim rugatis.

There is a tendency in the puncturation of the head and thorax to become longitudinally confluent; that of the elytra

is evenly distributed and not at all inclined to linear arrangement, although the elytra present some obscure indications of longitudinal striation; the transverse wrinkles on the same are very noticeable. The tibiæ are very like those of *Hypophlæus*, but the anterior pair are a little more dilated towards the apex, with the margins a little more sinuated, and the inner apex of all the tibiæ is briefly spined as in *Alphitobius*.

A few specimens have occurred to me under bark of *Eucalyptus*, near Port Lincoln.

TOXICUM.

T. curvicorne, sp. nov. Nigrum opacum; cornibus capitis sat elongatis; prothoracis apice leviter lobato; antennarum clava quadri-articulata. Long. 5 l.

The thorax is about one-fifth wider at the base than long; it is distinctly though not strongly lobed in front; the sides are nearly straight, and are parallel to each other; the posterior angles are sharply rectangular, the anterior roundly obtuse and little prominent; just within the posterior angles on either side is a rather short and ill-defined longitudinal fovea; the surface is feebly and sparingly, but distinctly, punctured. The elytra are striated, the striæ becoming better defined as they recede from the base and the suture. Each stria is set with moderately large and strong punctures, about 50 punctures in each of the striæ near the suture, a smaller number in the external ones. In the male the entire upper surface of the head is flattened, or rather very slightly concave, and is punctured somewhat similarly to the thorax, except that the punctures are quite sparse in front and become gradually closer backwards. The anterior pair of horns are about as long as the apical joint of the maxillary palpi and are inclined outward and forward. The length of the posterior horns is about the same as the length of the head. They are strongly compressed, their wide faces turned towards each other. They are strongly arcuate (their convexity on the outside) and nearly meet at their apices, which are clothed with yellow hair. In the female the upper surface of the head is flattened, somewhat uneven, and rather closely punctured, with two slight ridges where the posterior horns take their rise in the male.

I have a single pair of this insect, which were sent to me from Victoria.

T. spretum sp. nov. Nigrum; femoribus et antennarum articulo apicali rufescentibus; nitidum; cornibus capitis minus elongatis; prothorace transverso; elytris punctulato-striatis, interstitiis convexis; antennarum clava quadri-articulata. Long. 4½ l.

Thorax at its base about half as wide again as its length down the middle, slightly lobed in front, widest just behind the front, thence very slightly (scarcely noticeably) narrowed backward, its base moderately lobed and on either side foveated, its hind corners rectangular and the front ones rounded off, its surface covered with moderately close and lightly impressed but not particularly fine puncturation. The punctures in the striae on the elytra are rather large (a little larger than in the preceding species) and somewhat square; the interstices of the striae are distinctly convex (several near the middle of the disc being almost keel-like) and are smooth and shining. In the male the surface of the head is concave—as usual in the genus; the anterior horns differ little from those of the preceding species; the posterior horns are a little shorter than the length of the head, compressed; they are only *gently* arcuate, and their apices (which are clothed with yellow hairs) are as wide apart as their bases.

T. gracile, Pasc., is the only previously described Australian *Toxicum* of a shining appearance, and having an antennal club of four joints. This insect differs from it in having the elytra not wider behind than in front, the thorax scarcely narrowed hindwards, and (I should judge from the not very precise description) in the finer puncturation of its elytra and the convex interstices of the same.

There is a single specimen in the South Australian Museum, labelled as having been taken in New South Wales.

PTEBOHELEUS.

P. insignis, sp. nov. Parum nitidus; depressus; niger; antennis palpis pedibusque picescentibus; capite rugose crebrius, prothorace sparsim obsolete, punctatis; hoc elytris latiori; elytris transversim rugatis, granulatis, punctulato-striatis, striis nonnullis profundioribus, suturâ (apicem versus exceptâ) prominulâ, apice dehiscente. Long. 9 l. Lat 4 l.

Rather elongate and very depressed. Quite black, except the limbs, which are a little piceous. The surface of the head and prothorax is rendered opaque by excessively minute puncturation, and has also larger puncturation which on the former is rugose, but not strong nor very close, on the latter faint and sparse. The thorax is widest a little in front of the base (where it is twice and a half as wide as its length down the middle), moderately emarginate in front, the anterior angles not passing the front of the eyes and the distance between their apices being half the width of the thorax at its widest part; the dorsal line is scarcely indicated; the explanate margins are quite flat, very little narrowed forwards, and together

not quite half as wide as the space between them. The elytra are very slightly, but continuously, narrowed from the base in their anterior two-thirds and then rounded off to their apex; their surface strongly scored all over with short transverse impressions, punctured in 17 rows, the second, fourth, sixth, eighth, tenth, and twelfth rows of punctures in rather deep striae, the rest not in striae; the interstices flat; the explanate margin quite narrow, about a third the width of that of the prothorax, and not narrowed behind. The elytra are finely and sparingly granulate about the sides and apex. The suture is distinctly elevated to the beginning of the declivous apical portion, which slopes downward more strongly (but still quite gently) at its commencement than behind, so that looked at from the side the longitudinal outline appears sinuate behind. Each elytron is separately pointed at the apex, leaving a wide deep gap between the two apices. (It is just possible that this is abnormal.) The eyes are only moderately separated. The prosternum in my specimen is broken at the end, so I cannot characterize it. The tarsi are ferruginous beneath.

Roseworthy.

P. granulatus, Germ. Plentiful in many places near Adelaide. It has a kind of purplish bloom upon it that has not been noticed by its describers. The size varies from five to seven lines.

P. tristis, Germ. In Mr. Macleay's Monograph (Proc. Linn. Soc., N.S.W.) there is an error in the translation of Germar's Latin description of this South Australian species which might render the identification of the insect more difficult than it is, to persons not possessing Germar's memoir. The learned German says of the thorax, "densely and very finely punctate, with somewhat larger punctures interspersed," not (as Mr. Macleay has accidentally rendered the words I have italicised) "the punctures rather large and scattered." It is obviously a slip of the pen on Mr. Macleay's part, as what he has written turns the sentence into nonsense. The original description is a very inferior one, so that it is impossible to be quite sure what insect its author had before him; but there is a species in the South Australian Museum which I believe to be identical with it.* I supply the following particulars concerning it, which (important though they are) are not referred to by Germar.

Form narrow, elongate, parallel, and rather depressed (Long. $8\frac{1}{2}$ l. Lat. $4\frac{3}{4}$ l.) Thorax at base twice and a half its length down the middle and twice the distance between the apices of the front angles which just pass the front margins of the eyes. Explanate margins of thorax together decidedly less than half

* Since this was written the Hon. W. Macleay has confirmed the identification.

as wide as the intermediate space. Explanate margins of elytra very narrow (less than half the width of those of the thorax) and of even width throughout. Thorax very evidently narrower than the elytra. Curve of the prosternum not uniform, the hinder part of the prosternal process being less declivous than it should be to continue the curve. If I am right in my identification of this insect the transverse stri-gosity of the explanate margin of the thorax is hardly notice-able in ordinary specimens.

P. ater, sp. nov. Ovals; sat nitidus; ater, tarsis piceis; capite fortius rugose, prothorace minus subtiliter crebrius, punctulatis; hujus marginibus explanatis recurvis; elytris suturam et latera versus confuse, disco seriatim, fortius punctulatis. Long. 6 l., lat. $3\frac{2}{3}$ l.

The puncturation of the head is exceptionally strong and rugose. On the thorax there is a system of very fine close puncturation (hardly distinct under a Coddington lens), and also a system of much more sparing and much larger but very lightly-impressed punctures, not unlike those on the thorax of *P. nitidissimus*, Pasc. The width of the thorax at the base is three times its length down the middle, and nearly three times the distance between the apices of the anterior angles, which reach quite fully half way to the front of the head; the explanate lateral margins are very even in width, together are about equal to a third of the intervening space, and are rather strongly turned up at the side (especially in their anterior part); the base is rather strongly bisinuate. There is scarcely any trace of a central longitudinal impression, but the base has a well-marked shallow fovea on either side. The elytra are quite strongly punctured, the punctures forming about nine well-defined longitudinal rows on the disc, outside which, on either side, there is no serial arrangement; the whole punctura-tion becomes gradually finer from the base to the apex, where it is almost obsolete and quite confused. The explanate lateral margins of the elytra are nearly as wide at the extreme front as those of the thorax, but are gradually narrowed to the apex. The humeral angles are quite obtuse, the humeral callus dis-tinct but not very strong. On the underside the arch of the prosternum is continuous.

This species must be near *P. vicarius*, Pasc., which, however, is said to have the explanate margins of the thorax not recurved and the antennæ "short," with the seriate puncturation of the elytra interrupted only about the base and near the suture, in all which respects it differs from the subject of the above description.

Two specimens of this insect occurred to me in Western Victoria.

P. piceus, Kirby. In his monograph of the genus Mr. Macleay says of this species—"I have specimens of it, or closely resembling it, from all parts of N.S. Wales, from S. Australia, and from Queensland," thus indicating his opinion that it is a somewhat variable species, and a doubt whether more than one species may not be included under the name. I think I have, and have seen, a good many specimens attributable to Kirby's species, and agree with Mr. Macleay both in his opinion and his doubt. The form that, so far as I have seen, alone occurs in S. Australia would not be at once recognised as identical with that described by Mr. Macleay, although it agrees well enough with Kirby's original description, to which Mr. Macleay has very properly added certain particulars that distinguish what he considers, I believe rightly, to be Kirby's insect, from allied species since described. It will be of importance, therefore, to S. Australian students to supplement Mr. Macleay's description by saying that Kirby's expression, "very lightly punctured," in respect of the head and thorax, would be more applicable to S. Australian specimens than Mr. Macleay's "scarcely visibly punctured" in respect of the former, and "smooth" in respect of the latter. I have seen no specimens from this colony in which the puncturation is not quite traceable with a fairly-good lens, and very few in which it is not, though very lightly impressed (as Kirby calls it), nevertheless very distinct. In South Australian specimens, moreover, there is generally a tendency in the fourth, eighth, twelfth, and sixteenth interstices on the elytra to be slightly more evident than the rest; and Mr. Macleay's expression, "last joint of the antennæ red," is a little misleading, for though it is true that this joint is as a rule more *decidedly* red than the rest, yet the last three or four joints, and sometimes the whole antennæ, show a decided *tendency* towards a reddish colour. Some specimens are in a varying degree much larger (up to $11\frac{1}{2}$ l.), narrower, and more parallel than others from which they do not seem to differ otherwise. I take this to be a sexual difference similar to that noted by Mr. Pascoe in his *P. dispar*.

P. planus, Blessig. Concerning this species, Mr. Macleay merely remarks that he has never seen a description of it. As I have a copy of Blessig's memoir it will be well to supply the following abbreviated translation of his description.

"Oblong oval, sub-depressed, pitchy, head punctured, produced on the sides, apical four joints of the antennæ dilated; margin of the thorax and of the elytra dilated, obscurely red, impunctate; thorax transverse very finely punctured; elytra closely striate-punctate, interstices flat. Long. 16.5 mm., lat. 8.5 mm."

“Very near *P. peltatus* in build and colour, but twice as large and somewhat flatter. Clypeus finely punctured; forehead wide between the eyes, more strongly and dispersedly punctured than the clypeus. Antennæ reddish. Thorax widest at base and here fully twice as wide as long, in front strongly emarginate, behind gently bisinuate, very convex and extremely finely and dispersedly punctured, the explanate margin wide, flat but turned up at the edge (flachrinnenförmig), dark red, smooth. Elytra not quite a half longer than wide, very little convex, sometimes reddish; the rows of punctures close together (especially near the suture) and becoming obsolete near the apex, their interstices flat; the explanate margin nearly as wide as that of the thorax, gradually narrowed towards the apex, quite flat at the base. Collected in the neighbourhood of Melbourne.”

For the sake of brevity I have omitted those parts of the description which would not differentiate the insect from others of the genus. It is very probable that Mr. Macleay's *P. peltoides* is another name for M. Blessig's species, and must therefore be dropped.

I possess specimens of a *Pterohelæus* from Melbourne, that I believe to be identical with the above, although there is a discrepancy in the width of the elytral margin, which only at the extreme base nearly equals that of the prothorax, being contracted very quickly, thence continuing somewhat evenly (about half the width of the thoracic margin) to near the apex and then gradually narrowing to the end.

P. ovalis, sp. nov. Sat nitidus; ovalis; piceus, antennis, palpis, pedibus et prosterno dilutioribus; capite sparsius, prothorace sparsissime, obscure punctulatis; elytris fortius seriatim punctulatis; his prothoraceque sat late marginatis. Long. 5 l., lat. 3 l.

A remarkably oval form, the lateral outline of the thorax and elytra being an almost continuous curve, slightly sinuate just behind the shoulder and scarcely more so at the junction of the thorax and elytra. Owing to its thinness the explanate margin (as in many other species) has a transparent reddish appearance. The head and prothorax are faintly and sparingly, but not very finely, punctate; the latter is at the base three times as wide as its length down the middle, rather strongly emarginate in front (the anterior angles passing the eyes), moderately bisinuate behind, with the dorsal line a little more evident than usual in the genus, the explanate margins evenly wide throughout their length (the two together being quite half as wide as the space between them) and not concave nor horizontal but sloping outward and slightly downward. Each

elytron bears 17 rows of strong well-defined punctures, which are a little confused near the scutellum and become faint near the apex (the fifth row contains rather more than 40 punctures which retain their distinct seriate order almost to the extreme apex); the interstices are flat, or very nearly so; the explanate margin is as wide at the extreme base as that of the prothorax, but immediately is very much contracted; it is then very *gradually*, but not very evenly, contracted half way to the apex and from that point runs evenly without more contraction, and about one-third as wide as the explanate margin of the prothorax, to the end. The curve of the prosternum is not quite continuous, owing to the hinder end (behind the coxæ) being not so much sloping down as it would have to be to continue the curve evenly.

Streaky Bay.

HYPALAX.

H. orcus, Pasc. I have specimens that appear undoubtedly to belong to this species (hitherto recorded only from Western Australia) which were taken at Fowler's Bay and Wallaroo.

TENEBRIO.

T. Australis, Boisd. The description of this insect consists of eleven words, and might apply to a considerable number of *Tenebrionideæ*. M. Blessig in 1861 re-described it in a Russian scientific paper. He does not state on what grounds he considered his insect identical with Dr. Boisduval's, but as there is no improbability in its being so, and as he furnishes a very good description, his correctness should be assumed in the absence of evidence to the contrary. As he says, the species he describes (like others Boisduval attributed to the genus) is certainly not a true *Tenebrio*. It appears, however, to belong to the allied genus *Meneristes*, very briefly characterised by Mr. Pascoe in the *Annals of Nat. Hist.*, 1869, and is, I think, probably the species he names *M. laticollis*, Boisd.—at least I have the following reason for thinking so:—Mr. Pascoe states that his description is founded on a specimen received from Dr. Howitt (of Melbourne) as *Baryscelis laticollis*, Boisd. Now, I have in my own collection a specimen bearing that name on the same authority, which is certainly the species M. Blessig describes as *Tenebrio Australis*, Boisd. Singularly enough Mr. Pascoe states that there is a specimen of the same insect in the British Museum labelled *Tenebrio Australis*, McLeay (under which name Boisduval described the insect that is known as *T. Australis*, Boisd.). It seems probable that the explanation of this tangle is to be found in the identity of *T. Australis*, Boisd., and *B. laticollis*, Boisd., the descriptions

of which present no satisfactory difference from each other, and might very possibly have been founded on a mature and an immature specimen of the same species. That Dr. Boisduval committed such errors is well known, as witness M. Lacordaire's note (Gen. des Coléoptères, v. p. 414) that *Pachycælia sulcicollis*, Boisd., and *Helops sulcicollis*, Boisd. (described separately, 20 pages apart, in the Voy. de l'Astrolabe) are the same insect. As M. Blessig was the first to furnish a satisfactory description of this insect, I think that if my suggested explanation be accepted, his name should stand and that the insect should henceforth be known as *Meneristes Australis*, Boisd. I may add that M. Blessig (without giving a new generic name) furnishes excellent characters to distinguish *Meneristes* from *Tenebrio* and *Menephilus*.

MELANDYRIDÆ.

TEMNOPALPUS, *gen. nov.*

Antennæ 11-articulatæ, leviter clavatæ, clavâ 5 articulata; palporum maxillarium articuli 1-3 serrati, articulus 4^{us} magnus, cultriformis; caput sat declivè; tarsorum ungues simplices; coxæ anteriores contiguæ prominulæ.

The above mentioned characters will differentiate this genus from the rest of the family. The following particulars, however, should be added:—Labrum sub-truncate in front; apical joint of maxillary palpi nearly equal in length to all the preceding together; mandibles deeply bifid at apex; eyes entire; penultimate joint of tarsi sub-bilobed, the basal and apical joint of all nearly equal to each other, the intermediate joints together being a little shorter in the hind, a little longer in the front and intermediate tarsi than either the basal or apical joint. The marginal line of the prothorax is excessively slender.

T. bicolor, sp. nov. Minus elongatus; pubescens; fortius nec crebre punctulatus; niger; capite subtus in medio, labro, oris membris, mandibulis basi, prothorace, et pedibus (femoribus intermediis et posticis exceptis) rufis; prothorace lateribus rotundato, antice posticeque subtruncato. Long. 1 $\frac{3}{4}$ l.

The antennæ are equal in length to the head and prothorax together. The basal joint is globular and rather large; joints two to six do not differ much among themselves in size (3 being however the longest) but are all shorter and considerably narrower than the basal joint; the length of none of them except 3 is greater than the width; joints seven to ten are all moderately transverse, equal among themselves, and moderately wider than

the preceding five joints; the apical joint is of equal width but longer and pointed at the extremity. The head and prothorax are covered moderately closely with rather large punctures; the punctures on the elytra are a little smaller and about equally close.

Compared with *Conopalpus brevicollis*, Kraatz, to which the insect bears a certain superficial resemblance, besides the differences in the antennæ, palpi, &c., indicated in the generic diagnosis above, the thorax is less transverse (being a little more than half again as wide as long), much more rounded at the sides, and more coarsely punctured; the head is much less bent down; the elytra are very similarly punctured; the whole insect is also very much smaller. There are some traces of a central longitudinal keel, and some discal furrows on the thorax which are sufficiently irregular to suggest the idea of their being abnormal.

This is a very interesting addition to the Australian fauna. Hitherto no member of the family has been noticed as Australian except the Queensland *Orchesia elongata*, MacL., which is about as different from *T. bicolor* as one species can be from another within the limits of the same family.

A single specimen occurred near Port Lincoln. I have no record of the particulars of its capture.

LONGICORNES.

ATESTA.

A. Angasi, Pascoe. This seems to be a very variable insect. In a series before me that appear specifically indistinguishable the size varies from 5l. to 9l., and the apex of the elytra varies from being nearly quite rounded to being distinctly truncate or even emarginate (without either apex of the emargination being spined, however). In some specimens only the apex of the pale spot on the elytra is present, so that there appears to be merely a very small spot placed behind the middle of the elytra. In some specimens, too, the thoracic puncturation is very sparing, or even almost obsolete, and the tubercles are very ill-defined; in some the base and apex of the elytra are rufescent. In the males the hind tibiæ are a little arched. The third joint only of the antennæ carries a defined spine.

A. Tatei, sp. nov. Subangusta; nitida; sparse pubescens; piceo-nigra; antennis palpis pedibusque ferrugineis; prothorace transverso, sublævigato, inæquali; elytris (basi fortiter, apicem versus gradatim subtilius) punctulatis, flavo-maculatis, apice unispinosis; antennarum articulo tertio obsolete spinoso. Long. $9\frac{1}{2}$ — $11\frac{1}{2}$ l.

Black, with a slightly pitchy tone; the antennæ palpi and

legs rusty (one example has the basal joint of the antennæ pitchy). There is a yellow spot about the centre of each elytron. In one of my specimens it is large and obscurely continued to the margin, and there is a distinct yellow spot at the apex; in the other it is very small, and the apex is only reddish; the mandibles are a little reddish at the base. The puncturation of the head is large, rough, and ill-defined in front, close and strong behind. The thorax is very shining and almost smooth (having only a few large isolated punctures), except on the sides, where the puncturation is closer and coarse; its surface is uneven with ill-defined smooth swellings, and there is a smooth rounded tubercle about the middle of the lateral margin on either side. The punctures of the elytra are large and moderately close, but scarcely rugose, at the base; they become gradually finer and more sparing towards the apex, but there is no well-marked commencement of their change, and they have very little tendency to a linear arrangement. The third joint of the antennæ carries a short spine, the other joints are unarmed. In one of my specimens the antennæ are of the length of the body, in the other shorter. In one of my examples the metasternum only, in the other the whole under surface, is red. Femora clavate.

This species is allied to *A. Angasi*, Pasc., from which it differs in its sublævigate thorax a little wider than long, in the strong spine at the sutural apex of the elytra, &c., &c.

Two specimens were presented to me some time ago by Prof. Tate. They were taken at Fowler's Bay.

COPTOCERCUS.

C. fraternus, sp. nov. Robustus; longe sparsim hirsutus; niger; antennis, palpis, pedibusque fuscis; elytris antemedium flavo-notatis, postice crebre breviter pubescentibus sparsim fortius punctulatis, apice truncatis. Long. 13 l.

A robust species, sparingly clothed all over (including the legs and antennæ) with long erect hairs of the same colour as the surface from which they spring. The antennæ in one of my specimens are decidedly, in the other scarcely, shorter than the whole length of the insect; in both specimens joints three to six are furnished with external spines decreasing in size—in one joints 7 and 8 also being obscurely spined. The head is closely and roughly but rather finely punctured. The general surface of the prothorax is closely, irregularly, and very coarsely punctured and it bears some impunctate (and consequently more shining) elevated spaces; these consist of a longitudinal patch in the middle of the disc and a series of tubercles running obliquely forward and outward on either side from the base to about the middle of the length of the

thorax and then bending round to the front of the discal polished space, but they are very irregular, and in one of my specimens are almost connected together into ill-defined ridges. The prothorax is equally long and wide, somewhat constricted a little in front of the middle, all the unevenness of the surface being behind the constriction; the sides are distinctly but bluntly tuberculate in the middle. The scutellum is densely clothed with pale adpressed pubescence. The elytra are about four times as long as the prothorax, with, at the base, puncturation very large, coarse and close, which becomes gradually less strong and less close backwards, till at the apex it is sparing and rather feeble. Each elytron is traversed by three costæ (the outermost not well defined) which are strongest at the base and gradually fade away towards the apex; the basal one-third of the surface is shining, the apical two-thirds quite opaque owing to being densely clothed with short adpressed pubescence similar to that on the scutellum. The yellowish markings are confined to the anterior non-pubescent part of the elytra; in one of my specimens they consist of two irregular fasciæ (not reaching the suture or lateral margins) placed close together in the hinder half of the non-pubescent surface, and in the other are reduced to two small spots placed on each elytron close together near the lateral margin. On the underside the metasternum and hind body are densely clothed with silvery grey pubescence.

This species is allied to *C. pubescens*, Pasc., differing from it *inter alia* in its very much larger size, and in the puncturation of the elytra being continued (very distinctly indeed) quite to the apex.

I found two specimens of this fine insect under bark of *Eucalyptus* on Yorke's Peninsula.

BIMIA.

B. femoralis, Saund. I should say there is little doubt but that this is a variety of *B. bicolor*, White, from which it is said to differ in having no black mark on the head, a narrow instead of wide one on the prothorax, and the middle femora yellow instead of black. A short series before me varies in all these respects—no two specimens being coloured quite alike, and no one of them being coloured quite exactly as either of the species named above is said to be, the lightest specimen having a narrow blackish line across the head, and the base of the intermediate femora black, the darkest having the apex of the intermediate femora yellow.

PHYTOPHAGA.

DIPHYLLOCERA (Westw. Tr. Ent. Soc., v. 213).

This name has stood now for nearly forty years, but nevertheless it was pre-occupied, having been used in 1841 by A. White in Grey's "Two Journies in Australia" for a genus of *Lamellicornes*. White spelt it wrongly, "*Biphyllocera*," but his spelling was corrected by Erichson (in the following year, I believe), who has been followed by subsequent authors. The case appears to be a difficult one to adjust, but I think it should be done by substituting a new name for the Phytophagous genus. Unfortunately, "*Westwoodia*" is pre-occupied. I suggest, therefore, that the name "*Johannica*" be used, associating the learned Professor's insect with his Christian name.

A D D E N D U M .

LAMELLICORNES.

CÆLOTHORAX.

C. Oberthueri, Ancy. This insect is attributed in Mr. Masters' Catalogue to South Australia. It was described in 1880 in a French magazine called, I believe, *Le Naturaliste*. Having no other means of identifying it, I have recently applied to M. Ancy for information, and he has very courteously forwarded to me a MS. copy of his description, with the comment that he has discovered the insect to be identical with *Cavonus armatus*, Sharp, a determination which the perusal of his description entirely confirms. The name *Cælothorax Oberthueri* therefore must take its place as a synonym of *Cavonus armatus*.